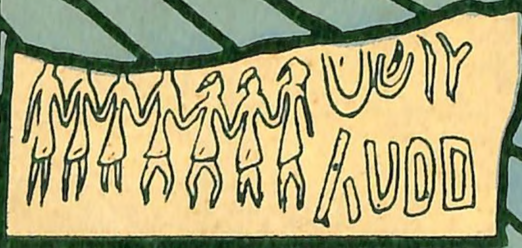


NEW LIGHT ON THE INDUS CIVILIZATION

K. N. SASTRI









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NEW LIGHT
ON
THE INDUS CIVILIZATION

Vol. I
RELIGION AND CHRONOLOGY

by
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WITH A FOREWORD
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FOREWORD

I have gone through the manuscript of Mr. K. N. Sastri's *New Light on the Indus Civilization, Vol I.* His association with Harappa, first as Excavation Assistant and then as Curator of the Archaeological Museum, for over twenty years, gave him the best opportunity to study the antiquities of this civilization at close quarters. His specialized knowledge of prehistory, both Indian and foreign, has enabled him to make an unbiased and balanced approach to many debatable problems and controversies. He has adduced a mass of convincing evidence in support of his points of view and conclusions which, in many cases, differ from those reached by other archaeologists of repute like Sir John Marshall, Dr. E. Mackay and Sir Mortimer Wheeler. What in my opinion lends weight to Mr. Sastri's views and conclusions is his special knowledge of cultural and Sanskritic background in the light of which alone a proper interpretation of prehistory has to be approached.

For the first time he informs us that the Indus religion was dominated not by the female, as believed by Sir John, but by the male element as in the Vedic religion ; also that the Mother Goddess was not the principal deity of the time, but the indwelling deity of the *pipal* tree, the *aśvattha-adhishthātri devatā*. He also thinks that the god depicted on Mohenjo-Daro seal No. 420, and interpreted by Sir John as prototype of three-headed Paśupati form of Śiva, is a buffalo-headed composite deity combining the features of several animals in his seemingly human form. The Indus gods and divine heroes, according to him, did not have human arms "loaded with bracelets from shoulder to wrist", as believed by the excavators, but centipede-arms. He also proves beyond doubt that the bull-grappling sports of which evidence has been found in the Indus Valley antedated the cognate Cretan sports by about a thousand years. They were therefore borrowed by Crete from India and not *vice versa* as shown by Dr. C. L. Fabri.

His views on the Indus chronology deserve serious consideration of scholars. He confidently states that the terminal dates of the Indus Civilization as given by Sir Mortimer Wheeler, *viz.*, c. 2500 B.C. and

1500 B. C., are not correct. According to his findings the origin of the Indus Civilization goes back to the first half of the 4th millennium. B. C. and the end to the beginning of the 2nd millennium B.C. Indus chronology is indeed a complex and complicated issue and on its true evaluation depends to a great extent the correct appreciation of the problems of the Dark Age that intervenes between the collapse of the Harappa Civilization and the dawn of the Buddhist period in the 6th century B.C.

Recent excavations by the Department of Archaeology at Rupar in the Ambala District, and Rangpur and Lothal in Saurashtra seem to confirm Mr. Sastri's views about the early date of the Indus Civilization. He brings out this point lucidly in his two articles on the antiquities unearthed at the above sites. Excavations at Hastinapur and extensive exploration in the valleys of the Sutlej and Ghaggar (ancient Sarasvatī) have recently brought to light a peculiar type of pottery, known Painted Grey Ware, which the Department of Archaeology ascribes to Vedic Aryans. Mr. Sastri deals with this subject in his article "Hastinapur Excavations and the Mahabharata Age" and shows with considerable reasoning that this ware was not Vedic in origin.

Finally in his article on 'Indus Script' he expresses his views on the character and composition of this script. His views on the direction of this script also differ from others' views. According to him it was not written from right to left as surmised by Prof. Langdon, Dr. Hunter and Messrs. Sidney Smith and Gadd, but from left to right like its derivative, the Brahmi writing.

The book under review is based on independent thinking and research on a subject which, though exhaustively dealt with by eminent scholars, still bristles with many knotty problems. I therefore feel it my duty to bring to the notice of the scholars interested in the subject the very valuable and original contribution that Mr. Sastri has made to the interpretation of a most important phase of prehistory.

RADHA KUMUD MOOKERJI

PREFACE

It gives me great pleasure to see this volume come out in the form of a coherent account of my long labours in the field of Indus Civilization. Intensive investigations into the cultural problems of this civilization have led me to hold serious differences on many vital issues with the excavators of Harappa and Mohenjo-daro. I am, however, confident that these differences, as set forth in the text, are honest and constructive and will throw additional light on the subject.

It has always been my earnest desire to place the results of my research before scholars for their valuable comments with a view to facilitating further study in this field of Indian archaeology. Needless to say that the subject of Indus Civilization, though dealt with exhaustively by eminent archaeologists, still needs a good deal of light to illumine its many obscure corners. I may add here for general information that the Hindi version of the book is also being brought out by the same publishers in the near future. It will be in the form of a single self-contained volume with a special emphasis on the importance of the prehistoric site of Harappa.

I am extremely grateful to Dr. Radha Kumud Mookerji who was kind enough to spare his valuable time for going through the manuscript and writing a foreword to it. I have also to express my gratitude to the Director General of Archaeology in India for permitting me the use of a few departmental photographs in the book ; as well as to Messrs. Atma Ram & Sons, the publishers, who took up this work and spared no pains to bring it out in its present attractive form.

K. N. SASTRI

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NEW LIGHT ON THE INDUS CIVILIZATION

CHAPTER I

INTRODUCTION

The present volume of the *New Light on the Indus Civilization* is a collection of twelve articles embodying the results of my research work, most of which have already appeared piecemeal in the *Hindustan Times* and other papers. My investigations mostly relate to the religious and the chronological problems pertaining to the civilization that dominated the Indus Valley from the 4th to the end of the 3rd mill. B. C. There is enormous material in the shape of seals, seal impressions, painted pottery and other art-objects from the Indus Valley and the peripheral regions which awaits thorough study on proper lines. The bulk of this material is now housed in the National and the Central Asian Antiquities Museums, New Delhi.

For over twenty years, first as Excavation Assistant and then Curator of the Archæological Museum, Harappa, I had been associated with the excavations at the prehistoric sites of Harappa and Mohenjo-daro. This long association with the centres of the Indus civilization give me a welcome opportunity to study the sites and their contents more closely and leisurely.

A critical examination of the evidence revealed by the Indus sites and the neighbouring regions has led me to hold serious differences with the excavators on several vital issues. Sir John Marshall, the principal excavator of Mohenjo-daro and a leading Indologist of the current century, held the view that the Mother Goddess was the chief deity of the Indus people and next to her stood the three-faced male god, the so-called prototype of the Paśupati form of Śiva. According to the same authority the majority of the deities of the Indus Age were goddesses, and this characteristic is cited by him as one of the major differences between the Harappans and the Vedic Aryans, whose gods were mainly dominated by the male element. This view of Sir John is shared by Dr. E. Mackay and other archæologists who subsequently excavated the sites of Harappa culture. My investigation, however, shows that the Indus deities, like those of the Aryans, were predominantly male and that

it was the Pipal God and not the Mother Goddess that headed the Indus pantheon. I have further shown that the Indus gods were mostly composite creatures, partly human and partly animal in form. They had centipedes for their arms, which were mistaken by the archæologists for human arms 'loaded with armlets from wrist to shoulder'. The upper parts of some gods are sometimes human and sometimes animal, while the lower ones are distinctly avian. The feathery coats of these avian figures were misunderstood by the excavators as 'short tunics cut aslant at the lower end'. Again my enquiry leads me to the conclusion that the so-called prototype of the Paśupati form of Śiva depicted on Mohenjo-daro seal no. 420 (PL. I, 1, 2) is not only not three-faced, but also not even human-faced. It is a buffalo-headed god having a composite body, whose arms are veritable centipedes, legs an intriguing combination of two looped cobras, and the thorax appears to be tigrine. Like the Sumerians, the Indus people, too, had a tree legend. The *pipal* (ficus religiosa) and acacia, probably the *śamī* (PL. III, 5 ; PL. XVIII, 9, 10), were held sacred, one being the Tree of Knowledge (*brahma-taru*) and the other the Tree of Life (*jīvana-taru*). The Tree of Life was guarded, besides the tree-spirit, by a human-headed composite animal, a three-headed chimera and probably by the divine bull or the buffalo.

My another major difference is with Dr. (now Sir) Mortimer Wheeler regarding the chronology of the Indus civilization. On the basis of his brief excavation round Mound A-B at Harappa and some other doubtful material evidence adduced by Prof. Stuart Piggott, he circumscribes the duration of the Indus civilization within the narrow limits of *circa* 2500 B. C. and 1500 B. C. According to him the innovators of the mature Harappa culture arrived at Harappa and Mohenjo-daro round about *circa* 2500 B. C. In his excavation referred to above he alleges to have found evidence that prior to this date the site of Harappa was occupied by some alien people. Thus in his opinion the Indus civilization at Harappa started with the arrival of the mature Harappa culture in or about 2500 B. C. and ended in 1500 B. C. My examination of the stratigraphical, material and the circumstantial evidence shows that Mound F at Harappa was about a thousand years older than the fortification wall, which was constructed by the 'mature Harappa culture' people shortly after their arrival at this place. Similarly, the evidence on hand indicates that the exposed Stratum VII at Mohenjo-daro cannot be later than *circa* 3000 B. C. Nothing is known about the duration of the period

covered by the unexplored strata of buildings that still lie hidden under subsoil water at this site. But judging from the full-fledged cultural stage represented by Stratum VII one may rightly presume, as suggested by Sir John Marshall, that it must have required at least an evolutionary period of a thousand years to reach that stage. On the whole the combined evidence of stratigraphy and foreign analogies points to the first half of the 4th mill. B. C. as the probable date for the initial stages of the Indus civilization.

I have also reconsidered the bearings of the material evidence adduced by Prof. S. Piggott in support of Dr. Wheeler's low-dating of the Indus civilization. I, however, regret to say that whereas he has made a capital of insignificant points that could be explained one way or the other, he has totally ignored the most important evidence which could easily tilt the scales against his cherished theory. I have discussed and weighed all relevant evidence carefully and drawn from it only the reasonable inferences.

In Ancient India No. 3 Dr. Wheeler identifies the authors of the Cemetery H at Harappa with the Vedic Aryans, and arrives at the conclusion that it were these latter people who, some time in or about 1500 B.C., barbarously destroyed the Indus civilization. On the strength of his own findings I have conclusively shown that the Cemetery H people could not be the Vedic Aryans.

Evidence of Minoan Crete. Another important piece of evidence pointing to the high date of the Indus civilization is furnished by the game of 'vaulting-over-the-sacred-bull' by priests as depicted on two Mohenjo-daro seals. One of these seals shows the ceremony being performed in front of acacia, the Tree of Life, under the benign patronage of the buffalo-headed god. Both of these seals came from low levels in the mounds at Mohenjo-daro and stratigraphically are ascribable to a period not later than the first quarter of the 3rd mill. B. C. In a note appended to the Annual Report of the Archæological Survey of India for the year 1934-35, Dr. C. L. Fabri has tried to show that these sacred sports were borrowed by the Indus people from Minoan Crete where they were periodically held in honour of the Mother Goddess who was symbolized by the sacred tree, the divine dove and the double-axe. As, however, the Cretan counterparts of these games acquired sanctity in or about *circa* 1750 B. C. and became popular from the 15th to the 12th cent. B.C, they could not have influenced the Indus civilization which had already become extinct by the 18th cent. B. C. The cumulative evidence points to one and the only conclusion that it was rather the Minoan Crete that

borrowed this religious element from the Indus Valley directly or indirectly at the end of the 3rd mill. B.C. or thereabout. It is a well known fact that the religion and the art-traditions of the Cretans of this period were inspired by the higher civilizations of West Asia and Egypt.

Evidence of Rangpur and Rupar. The recent excavations at the protohistoric sites of Rangpur (in Saurashtra) and Rupar (in East Punjab) show that the Harappans who settled here in or about *circa* 2000 B. C. had forgotten their best art-traditions and lost the old religious heritage. These sites have not produced a single object of religious significance to suggest that the settlers still worshipped the same gods as were popular in the Indus Age, like the buffalo-headed deity, the Pipal God and the Mother Goddess.

This total absence of the distinctive Harappa elements is proof positive of the fact that the contemporary inhabitants of these settlements had lost contact with the centres of the Indus civilization for long and were no longer being inspired by the native traditions. They appear to be the distant descendants of those Harappans who after disintegration of the Indus Empire migrated east and southward and after halting at many intermediate stations ultimately arrived at these outstations with a very poor cultural equipment.

Evidence of Lothal. During the year 1954-55 the Department of Archæology tackled another protohistoric mound in Saurashtra, called Lothal, which is about thirty miles north-east of Rangpur. This mound appears to be the most important of all Harappan sites so far discovered in the Indian Union. It is better preserved than Rangpur or Rupar and is also half a millennium older than either of them. A remarkable thing about Lothal is that, unlike the other two sites, it was occupied throughout its life by the Harappans and no other people. Its beginnings extend as far back as *circa* 2500 B. C. and it has yielded five Indus seals one of which is engraved with a unicorn. This animal, as we know from Mohenjo-daro seal no. 387, was sacred to the Pipal God and as such it shows that the people living at Lothal had preserved to some extent the dying religious traditions of their homeland.

Painted Grey Ware People. The Dark Period intervening between the end of the Indus civilization and the birth of Buddhism in the 6th century B. C. had always been a problem for the historians. The discovery of the Painted Grey Ware in the post-Harappa levels at sites like Hastinapur, Rupar and Salaura affords a partial peep into the mysteries of India's unknown past. This ware is stated to

have also been found at nearly as many as sixty sites in the upper Sutlej basin and the Ghaggar (ancient Sarasvatī) valley in the Bikaner State. It is the general impression of the excavators and the explorers that the Painted Grey Ware was an exotic ceramic industry introduced by the invading Vedic Aryans who arrived in the Ghaggar Valley in or about the 14th cent. B. C. In my article "Hastinapura Excavations and the Mahabharata Age" I have pointed out the difficulties that beset our path if we identify the inventors of the above pottery with the Vedic Aryans.

The need for correct assessment of the date of the Indus civilization is self-evident. At the far end of the vast expanse of the Dark Age of Indian history stands, like a rock, the Indus civilization which appears to be the only sure guiding landmark. If we can locate it correctly and understand it in all its bearing, it will serve as a valuable yardstick for measuring the intervening gap and solving its many chronological problems. I am afraid the low date recently given to it by foreign archæologists which is now being followed tacitly by the Indian students and the scholars alike, does not fit in the chronological framework of Indian prehistory, as shown by the evidence from Lothal and other protohistoric sites.

We must not accept anything and everything cooked and offered to us by foreigners. We should have our independent views and the capacity to test others' views on the touchstone of independent evidence.

This booklet is the first of the three publications I propose to bring out under the title "New Light on the Indus Civilization." The second volume will be devoted to the disposal of the dead and the eschatological beliefs of the Indus people ; and the third volume to the peculiar system of pictographic writing that was in vogue in that age. I strongly hold that the Indus people, though practising inhumation, did not believe, unlike the Sumerians and the Babylonians, in an underworld, but in a sky-world, or rather in a solar world, to which the spirits of the deceased were supposed to repair after death. Their beliefs about life after death were strikingly similar to those of the Vedic Aryans, though the latter practised cremation and not burial.

PLATE I

GOODS AND OTHER MOTIFS CARVED ON THE INDUS SEALS



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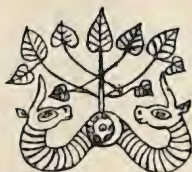
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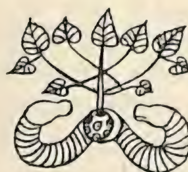
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CHAPTER II

BUFFALO-HEADED COMPOSITE GOD OF THE INDUS VALLEY[1]

The god under reference (PL. I, 1, 2) is carved on a square steatite seal which was excavated by Dr. E. Mackay at Mohenjo-daro in 1930 and has since been published in his work "Further Excavations at Mohenjo-daro".[2] He is described as three-faced, seated in *yogic* pose with legs bent double beneath him, heel to heel, and toes turned downwards. His arms, said to be loaded with bangles from wrist to shoulder, are outstretched—the thumbs touching the knees. Commenting on the triangular pectoral or the breast-plate which the god seems wearing, Sir John Marshall says, "The breast-plate may be connected with the *kavacha* which became an amulet against powers of evil with the *Śāktas*. The lower part of the body is bare and the phallus seemingly exposed (*ūrdhva-medhra*), but it may also be the end of the waist-band. The god wears a tall horned head-dress. On either side are four animals, an elephant and tiger on his proper right and a rhinoceros and buffalo on the left. Beneath his throne are two regardant deer with horns in the centre. The god has peculiarly distinctive features. His three faces may mean that he represents a triad or trinity—some three gods combined into one like the Hindu *Trimurti* or he may even be four-faced, the fourth face on the backside being invisible and represent an earlier god, a prototype of Maheśa. The conception of triad or trinity is very old in India and equally old in Mesopotamia where such triads as those of Sin, Shamash and Ishtar, or, of Anu, Enlil and Ea were long antecedent to the Aryans. The idea of triad may also find expression in the three-faced animal on seal no. 382—which combines bison, unicorn, and ibex"[3] (PL. IV, 2).

Again he observes, "Śiva is pre-eminently the prince of *Yogis*, whence his names *Mahātapah* and *Mahāyogi*, the typical ascetic and self-mortifier............Like Śaivism itself *yoga* had its origin among

[1]This article was first published in the Hindustan Times, dated ..... 1953.

[2]Mackay, E., Further Excavations at Mohenjo-daro, Vol. II, PL. XCIV, 420.

[3]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. III, PL. CXII, 382.

the pre-Aryan population..................Śiva is not only prince of *Yogis*, he is also the lord of the beasts (*Paśupati*) and it is seemingly in reference to this aspect of his nature, that the four animals—the elephant, tiger, rhinoceros and buffalo are grouped about him........... In later days the horns on the head of the Indus god took the form of the *triśūla* or trident and in that guise continued to be a special attribute of Śiva............We have, then, on this seal a god whose distinguishing attributes proclaim him the prototype, in his most essential aspects, of the historic Śiva"[1]

The above extract gives the gist of the interpretation which Sir John Marshall puts on the deity portrayed on seal no. 420. A close examination of the seal, however, leads me to hold a different view on the composition and character of this divine figure. In the first place the god is neither three-faced nor even human-faced. His whole form, though apparently human, is cunningly contrived to be a combination of various animals. In reality, the figure is a masterpiece of camouflage and deception. The high-ridged long face, the oblique cavernous eyes, the laterally projecting ears, the double line of wrinkles descending on either side from the eyes down to the end of the muzzle, and lastly the round bony head—all clearly proclaim that the head is that of an animal ; and the wide-spreading horns which are distinctly of buffalo unmistakably show him a buffalo-headed deity. The wrong impression of the two side-faces is due to the projecting ears which can easily be mistaken for aquiline human noses. Below each ear are two horizontal strokes which produce the illusion of human lips, but which in fact are the protruding ends of a U-shaped ornament or amulet the god is seemingly wearing under the chin (PL. I, 1, 2)[2].

It will be noticed that the head-dress of the god is only a stylized copy of the *pipal* tree flanked by two unicorn heads as seen on Mohenjo-daro seal no. 387 (PL. I, 5)[3]. In this head-dress the fan-shaped crest imitates the form of the foliage of the *pipal* tree and the buffalo horns represent the two conventionalized unicorn heads (PL. I, 6-8). On a number of seals from Harappa and Mohenjo-daro is portrayed the highest deity[4] of the Indus pantheon standing inside an arch-shaped split *pipal* tree, and on seal no. 387, referred to above

[1]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. I, pp. 53-56.

[2]See p. 23 below

[3]Marshall, Sir John, *Op. Cit.*, Vol. III, PL. CXII, 387

[4]See p. 15 below.

the tree is guarded by two unicorn heads poised against its trunk. Thus the *pipal* tree and the unicorn being symbols of the Pipal God, it naturally follows that the buffalo-headed god who wore a crown composed of the two divine attributes of the Supreme Deity held no doubt a position subordinate to the latter.

As already pointed out, the arms of the deity are said to be loaded with armlets from shoulder to wrist. Despite their misleading appearance they are not human arms. In fact they are veritable centipedes dangling down below the shoulders. In order to substantiate my view I cite below in figure 3 (Plate 1) the evidence of Harappa seal no. 249[1], in which a human-headed syncretic animal is portrayed. The striking thing about it is that a centipede hangs down below its chin in the form of an elephant's trunk. The idea underlying this quaint combination was to invest this limb with the deadly weight plus the mighty sweep of an elephant's trunk as also with the proverbial grip of the centipede. The animal was a divine agent supposed to possess multiple supernatural powers that enabled it to be the fittest sentinel of the Tree of Life[2]. The arms of the deities and deified heroes depicted on the Indus seals, if minutely examined, will be found to be veritable centipedes. The central idea underlying this substitution was the same as referred to above in the case of the composite animal. That is why even the Gilgamesh-like hero gripping with his pincer-like hands the necks of the two tigers has centipede-arms[3] (PL. II, 7).

Let me now turn to the lower part of the body below waist which is an extremely intriguing piece of artistic expression. It gives an unmistakable appearance of human legs tightly locked into what may be called the *yogāsana* pose, yet, in reality, it is a cunning combination of two looped cobras whose juxtaposed heads rest at god's waist and tails terminate in the upturned toes. It is very difficult to detect the serpentine character of this part of the body until it is seen upside down and closely examined (PL. III, 1). Here the heads of the two cobras set against each other form the hips of the deity and their looped bodies constitute the doubled legs. The ornamental pendant hanging from the waist-band, when looked at in reverse position, forms the dividing line between the cobra heads, and the two volutes at its lower end serve the purpose of eyes of the two reptiles. Another noteworthy thing in the composition of this strange god is

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[1]Vats, M.S., Excavations at Harappa, Vol. II, PL. XCI, 249.

[2]See p. 27 below.

[3]Mackay, E., *Op. Cit.*, Vol. II, PL. LXXXIV, 75.

his utterly impossible squatting pose. He is shown seated on a dais hardly touching it with his upturned toes, while the rest of the body is balanced in the air above the seat. Add to this the contorted form of the feet and the toes. The former are vertically pressed down under the haunches with heels pointing upwards and the latter bent at right angles to the feet. This seating pose is evidently an impossible physical feat, but, considering that he was a divine *yogī*, the priest-artist probably deemed it necessary to represent him as though performing a miracle.

In support of the serpentine character of his legs may be cited the evidence of a Mohenjo-daro seal in which an almost identical god appears in a slightly different garb (PL. I, 4)[1]. Here the head of the divine figure, though somewhat indistinct, can still be recognized as that of an animal. In this example the whole body of the god below neck (excepting arms) is clearly composed of two serpents whose heads partly merge in the region of chest, but bodies branch off below waist to form legs. The heads re-appear above the shoulders and seem to hold the centipede-arms in their jaws. In this representation, too, the god is poised in the air pretty clear of the seat which has hoofed legs. His disproportionately long feet are in reality the tail-ends of the twin reptiles. In stead of merely touching the seat they penetrate it and seem to extend even below its bottom.

As regards god's chest, it is generally believed that he is wearing on it a triangular pectoral or breast-plate which, as surmised by Sir John Marshall, gave rise to the *tāntric kavacha* amulet of the Śāktas. The above interpretation by the learned scholar, if accepted, would be incompatible with the aggregate composite form of the figure. On grounds of analogy the conclusion may rather be drawn that this part of the deity, if not partly tigrine, has at least a covering of tiger-skin. It closely resembles the striped body of the rampant tiger on his proper right. Incidentally a reference may here be made to another composite deity appearing on Mohenjo-daro seal (PL. II, 6)[2] whose body is partly human and partly tigrine, showing that this sort of odd combination was not unknown to the Indus artists. Again, considering that the rest of the body is entirely composed of various animals, it would be logical to conclude that the thorax, too, is represented by some such heterogeneous element.

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[1]Mackay E., Further Excavations at Mohenjo-daro, Vol. II, PL. LXXXVII, 222.

[2]*Ibid*, Vol. II, PL. LXXXIX, 347.

Perhaps it was the intention of the master-artist who conceived this divine figure to incorporate in its composition one more animal form. If attention is exclusively focussed on that part which includes the head, the horns and an arm of the deity as shown in PL. III, 2 the form of a scorpion also begins to emerge. But this is merely a possible conjecture.

Another important feature of the buffalo-headed god is that his seat has hourglass-shaped thick supports which in fact are crabs. The seat of the same god on seal no. 222, referred to above, has bull's legs. It is well known that in ancient Egypt and Mesopotamia couches with clawed or hoofed feet were characteristic of furniture unearthed from early graves[1].

In respect of his strange arms and legs the Indus god exhibits significant parallelism with Sumerian and Babylonian deities. In Mesopotamia, too, the deities and deified heroes were represented with arms and legs simulating animal forms. For example, a god carved on a cylinder seal of the Dynastic period has leonine legs (PL. II, 12) and another anthropomorphic deity shows, besides lion's head, leonine arms (PL. II, 13)[2]. Even the weapons of the deities were sometimes shown surmounted with deadly animals. Thus the scimitar of Ishtar was serpent-headed (PL. II, 11) and a crutch-shaped weapon of another deity scorpion-headed.[3]

It is noteworthy that of the four seals excavated by Dr. E. Mackay at Mohenjo-daro on which the buffalo-headed god figures, two came from lower and two from upper levels. This shows that the Indus deities were represented with buffalo horns from the earliest times in the history of the Indus Civilization. This no doubt presents a striking contrast with Mesopotamian deities or deified heroes who are invariably represented with bison's horns throughout the pre-Sargonic period (PL III, 3). In Mesopotamia buffalo takes the place of the bison in Sargonic times. Ward observes that India is generally spoken of as the original home of buffalo where it is found wild even now, and writers discuss as to the time when it was brought from India to Egypt where it appears on the monuments from the XVIIIth Dynasty onwards. That buffalo is native to India from the earliest times is proved beyond doubt by its representations on the Indus seals and in terra cotta from low levels. It appears that

[1]Mackenzie, D. A., Myths of Babylonia and Assyria, pp. 212-13.
[2]Frankfort, H., Cylinder Seals, PL. XI, *a*, *n*.
[3]Ward, W.H., Cylinder Seals of Western Asia, p. 155, Figs. 407 and 408.

the animal was first introduced into Mesopotamia from India in or a little before the Sargonic time (24th cent. B.C.) and from there it found its way to Egypt in the middle of the second mill. B.C. This serves an important chronological landmark for co-ordinating the Sargonic period with the upper levels of Mohenjo-daro.

From the above discussion it follows that the buffalo-headed god of the Indus Valley comes nearer to the Vedic god Rudra than to the historic Paśupati form of Śiva. In the Rigveda Rudra is described as fierce and destructive and also addressed with the epithets of Paśupati and Asura. He is called Paśupati (lord of beasts) because he attacks them and therefore they are consigned to his care for safe custody.[1] In the Aitareya Brahmana[2] Rudra is said to be composed of the most terrible substances. Again, in the Vedic literature we find a reference to the anthropomorphic gods in heaven being surrounded by a celestial animal world.[3] The god under reference is also surrounded by a number of animals. On his proper right are an elephant and tiger, on the left a rhinoceros and buffalo. Under his throne are his two pet ibexes or deer standing in regardant pose.

The Indologists are unanimous in their opinion that the Indus Civilization is of non-Aryan origin. Sir John Marshall has tentatively identified this deity as the prototype of the Paśupati form of Śiva of historic times. It would, however, be more logical to regard Paśupati Śiva as a lineal descendant of the Vedic Rudra whose many epithets and traits he legitimately inherits. Let it be remembered that the first contacts between the Indus people and the Aryans took place in Vedic times. There is no evidence of later contacts as the Indus Civilization ceased to exist after the 15th cent. B. C. or thereabout--a date conventionally assigned to the first advent of the Aryans in India. As a matter of course, the first intercourse and exchange of ideas between the two racial groups must have materialized round about that date. So there is more possibility of the Indus god being the prototype of the Vedic Rudra than of the historic Śiva.

It cannot, however, be denied that there are some common points that evidently link the buffalo-headed god with the Vedic Rudra on the one hand and the historic Śiva on the other. They

[1]Macdonell, A.A., Vedic Mythology, p. 75.
[2]Aitareya Brahmana, 3, 33.
[3]Macdonell, A.A., *Ibid*., p. 148.

are his composite animal body simulating human form, his association with wild beasts and his *yogic* pose. Of them, the first two are also common to Rudra and the latter two to Śiva. As already pointed out, Rudra was also a compound of deadly substances and being Paśupati he was lord of the animal world. Significantly enough the historic Śiva, though not actually composed of such heterogeneous elements, is closely associated with them. In his terrific aspect he is Mahākāla (destroyer of even Death). The whole host of deadliest beasts and evil spirits are at his beck and call. The cobras play about his body harmlessly. He is *Vyāghrāmbara* and *Krittivāsas* (clad in skins of tiger and elephant), implying that he can easily strip the deadliest animal of its skin and don it for his raiment. There is a tradition current in some parts of India that at the advent of winter on the Diwali day Śiva collects all venomous creatures like snakes, centipedes, scorpions, etc. in his omnibus bag, where they remain captive for six months, and then throws them out again on the Śivarātri day as the summer sets in. Such-like traditions manifestly had their origin in the prehistoric past of India.

It is not improbable that the buffalo-headed god of the Indus Valley was in some way connected with the Mahishāsura (Buffalo-demon) episode of the Puranic times. Perhaps, in course of time the post-Vedic Aryans deposed this alien god from the high pedestal of divinity and relegated him to the despicable status of an Asura. This might have given birth to the above episode long after the Indus Civilization with its glorious institutions had passed away into the limbo of oblivion.

PLATE II

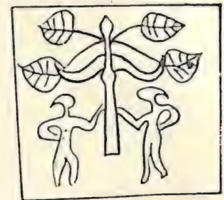
DIVINITIES CARVED ON SEALS FROM INDUS VALLEY AND MESOPOTAMIA



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ख 2



ग 3



घ 4



ङ 5



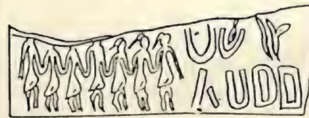
च 6



छ 7



ज 8



झ 9



ञ 10



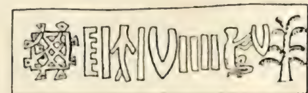
ट 11



ठ 12



ड 13 13



ढ 14

CHAPTER III

THE SUPREME DEITY OF THE INDUS VALLEY[1]

A large number of seals and seal impressions discovered at Harappa and Mohenjo-daro show beyond doubt that the Indus people were polytheistic in their religious beliefs. Like the Sumerians and the Babylonians they had a multitude of gods and goddesses of high and low ranks presiding over various natural phenomena such as the sky, the storms, the lightning, earth, water, fire, air, the plant and animal life, etc.

In Chapter V of his monograph "Mohenjo-daro and the Indus Civilization" Sir John Marshall deals with the religion of the Indus people quite exhaustively. According to him, it was the Mother Goddess that was held in the highest esteem, and slightly lower in rank was a three-headed male god, the so-called prototype of the historic Paśupati form of Śiva. Next in the order of sanctity came the cults of the phallic emblems and baetylic stones comprising a large number of *lingams* and *yonis* of which, he says, some were associated with the worship of the Mother Goddess.

Male Predominated. In my view the so-called three-headed Paśupati form of Śiva is in fact a buffalo-headed composite deity whose body is a clever fusion of various deadly animals. For example, his arms are veritable centipedes, thorax is tigrine and the part below waist is an intriguing combination of two looped cobras. My thesis is that among the Indus pantheon it was not the female element, as suggested by Sir John Marshall and other scholars of his following, but the male one that predominated. In other words, the Mother Goddess was not the supreme deity of the Indus Valley ; on the contrary, it was a male god supposed to be the presiding spirit of the divine Tree of Knowledge that enjoyed this honour.

Several Indus seals exhibit a deity standing inside a split *pipal* tree (ficus religiosa) which is sometimes shown in upright position with open top but elsewhere upside down like an arch. I refer here to Mohenjo-daro seal no. 430 (PL. II, 1) which is a graphic representation of the legendary scene where the *pipal* deity figures prominently.

[1]This article was first published in the Hindustan Times dated January 17, 1954.

In the upper register on the right-hand side is a stylized *pipal* tree springing from a circular socket in the form of a reversed arch and inside this stands the deity facing to left. The latter has a tridentate horned head-dress below which projects stiffly the serrated pigtail behind the head. The pigtail is nothing but a sprig of the acacia tree generally worn by the Indus deities. The god has centipede-arms hanging down parallel to the body.

The Seed Vessel. The circular socket at the base of the tree is the seed vessel or basin from which the tree is issuing. This seed vessel is clearly visible on Mohenjo-daro seal no. 387 referred to below (PL. I, 5)[1]. The two parts of the *pipal* tree, each shown with leaves sticking out on one side only, clearly indicate that the tree has split into two halves revealing the deity residing it.

In front of the god is a suppliant, evidently a priest or a subordinate god, wearing tridentate head-dress and the pigtail, both signs of divinity. He is seated in the same semi-kneeling pose as is characteristic of the guardian spirit of acacia tree. His centipede-arms are slightly bent at the elbow and raised in supplication. Close to his right knee is a small table of offerings and behind him stands a large composite goat with beaked face and twisted horns. The goat may be the owl-headed hybrid animal as seen on Mohenjo-daro seal no. 606 (PL. III, 6)[2]. His composite character and extraordinarily large size suggest that he is not an ordinary animal brought by the suppliant as an offering to the deity, but rather an intermediary deity who has conducted a godling or priest in the presence of the principal god. Such intermediary deities commonly figure on the legendary seals of contemporary Mesopotamia.

Bird-men Attendants. In the lower register of the seal is a file of seven human beings standing facing to left. Each of them is human in the upper part but avian in the lower as evident from their bird-like tails and slender legs terminating in claws. Their arms and pigtails are obviously dangling centipedes and the heads have sprays of *pipal* or acacia tree for crests. These half-human and half-avian figures appear to be ministrants or celestial messengers who, to judge from their feathery coats, could traverse immense aerial regions unhindered. In the composite forms of these figures the body above waist is human but the lower part, including the tail and legs, is that of a bird. In this respect they can be compared to the bird-men of

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[1]See p. 19 below.

[2]Mackay, E., Further Excavations, Vol. II, PL. XCVIII, 606.

the Sumerian mythology where the latter represented either the Zu bird or the eagle of the Etana and Eagle myth (PL. II, 10).[1]

Along the top margin is an inscription of six pictograms arranged in two lines, and near the socket of the *pipal* tree is another pictogram. This last sign is probably an ideogram signifying the shrine of the god like its Sumerian equivalent having an identical value. The fragmentary Harappa seal no. 251 (PL. II, 9) also shows seven ministrants, partly human and partly avian, standing in front of a two-line inscription. The front figure is pointing with its hand at what appears to be a sacred formula.

Other Views. These seven ministrant godlings have been described by Sir John Marshall, Dr. Mackay and other scholars as human attendants wearing short tunic-like jackets cut aslant at the lower border. In explaining the scene on Mohenjo-daro seal no. 430 (PL. II, 1) Sir John says : "The nude deity appearing between the branches is very small and roughly portrayed, but the absence of any evidence of male sex coupled with the fact that tree deities in India are usually female, and that the ministrant figures on this seal also appear to be women, all point to its being a goddess rather than a god... ..The seven figures in a line at the bottom I take to be female officiants or ministrants of the goddess. The plumes on their heads might be feathers, but it is more probable that they are small branches such as in Kafiristan are still worn on the head by officiants at the worship of the Chili or Himalayan pencil cedar, when branches are also burnt in honour of the spirit."[2]

Writing about the same, Dr. Mackay remarks : "Though no doubt the figure in the tree represents a goddess, the kneeling figure may also be a deity as the same head-dress is worn by both or it may be an ordinary human being attired in a manner that was thought to be pleasing to the goddess. I am inclined to regard the worshipper as a goddess also, but one of the lower degree than the one in the tree. The seven figures below may be deities of lesser rank, or even the daughters of the principal deity. Their number seven is significant, for to it a mystical quality is attached in India as well as in other parts of the world."[3]

No Jacket or Tunic. The Indus deities and deified heroes have centipede-arms and not human arms loaded with armlets from

[1]Frankfort, H.. Cylinder Seals. PL. XXIII, e.

[2]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. I, p. 63.

[3]Mackay, E., Further Excavations, Vol. I, p. 337.

shoulder to wrist'. The pigtails on the heads of the seven figures are neither feathers nor tree branches, but veritable centipedes pointing to the terrible nature of these superhuman beings whose arms and even pigtails possessed the proverbial thorny grip of a centipede. According to both the scholars the tree deity, the worshipper and the seven attendants are all females. But my investigation shows that they are all male. It is not the female deities alone that were associated with trees in India, even the male ones like the Yakshas, Gandharvas and Kinnaras frequently appear in the role of tree spirits in Indian literature and art.

I have closely examined these figures and confidently feel that they are not wearing anything of the kind describable as a jacket or tunic. Their human bodies gradually assume the shape of birds' tails below waist making them look aslant at the lower end. By no stretch of imagination can they be described as wearing tunics, because such wear is unknown on the persons of the Indus deities, whether in glyptic or plastic art. The gods are shown either nude or semi-nude clad only in loin-cloths, and the goddesses in short skirts resembling the Sumerian female wear called *kaunakas*.

The fact that the Indus people conceived some of their gods partly human and partly avian in form can also be corroborated by other independent evidence. On Mohenjo-daro seal No. 347 (PL. II, 6) there appears a composite deity whose upper part is human, the lower avian and the back tigrine. The bird-like tail and the two long slender legs terminating in claws are clearly discernible. The striking thing about these bird-men godlings is their number—seven—which recalls the seven Maruts (storm-gods), the followers of the Aryan warlord Indra. In the Vedas they are stated to be like birds perching on their sacred altar and as sons of Rudra, the wild boar of the sky.[1] According to Sumerian mythology the seven evil spirits of tempest were bred in the ocean house of Ea. These seven sea giants were also messengers of Anu who was one of the three gods of the Sumerian triad, *viz*, Ea, Anu and Enlil.[2]

The Pipal God. On the evidence furnished by the Mohenjo-daro seals nos. 420 and 387 (PL. I, 1, 5) we come to the conclusion that both the *pipal* and the unicorn were intimately connected with the *pipal* god. His being invariably portrayed as enshrined in a *pipal* tree leaves no doubt that the tree is his abode and he is *par*

[1] Macdonell, A. A., Vedic Mythology, pp. 69-75.
[2] Mackenzie, D. A., Myths of Babylonia and Assyria, pp. 29-39.

excellence the presiding deity of this celestial plant (*aśva'tha-adhishthātri-devatā*). On seal no. 387 is a conventionalized *pipal* tree emerging from the sacred altar. Coiled around its trunk are two unicorns, evidently in the role of its guardians or perhaps as vehicles of the god residing in the tree.

Another noteworthy feature of the seal is that the two unicorn heads and the *pipal* tree, springing as they are from the same seed vessel, have cognate birth and as such are both divine. This combination of the sacred *pipal* tree and the unicorn unmistakably points that both of them are symbolic of the deity inhabiting the sacred tree. The head dress of the buffalo-headed god portrayed on Mohenjo-daro seal no. 420 (PL. I, 1) is only a stylized miniature copy of the *pipal* motif occurring on seal no. 387. The fan-like crest of his head-dress imitates the fan-like foliage of the tree and the buffalo horns simulate the shape of the flanking unicorn heads. The *pipal* tree and the unicorn being thus symbolic of the *pipal* god, it naturally follows that the buffalo-headed god, who wore a crown composed of the above two emblems, held no doubt a position subordinate to the former. The *pipal* god was unquestionably the supreme deity of the Indus Valley and the buffalo-headed god was only next to him in rank. Under the command of this supreme deity there was a host of smaller deities and semi-divine beings, some being anthropomorphic, some theriomorphic and others syncretic.

Chanhu-daro Sealing. In confirmation of the fact that this horned *pipal* motif worn by the buffalo-headed god was highly venerated by the Indus people as a symbol of the supreme deity let me cite independent evidence from another Indus site. In course of his excavations at Chanhu-daro Dr. E. Mackay, the head of the American Expedition, came across a very important terra-cotta sealing (PL. II, 3)[1] from early Harappan deposits underlying the late Jhukar culture. It shows in relief two attendant priests standing face to face and supporting with one arm a horned *pipal* motif between them while holding the other arm akimbo.

This motif is very similar to the one depicted on Mohenjo-daro seal No. 387 (PL I, 5) and to the horned head-dress of the buffalo-headed god. The object which they are holding is nothing else except the divine crown symbolic of the *pipal*-god, the supreme deity of the Indus Valley, which the subordinate gods wore in allegiance to the high authority of the former. Dr. Mackay was unable not only

[1]Mackay, E , Chanhu-daro Excavations, PL. LII, 36.

to grasp the real significance of this motif but even to notice below the *pipal* branches the presence of buffalo horns as will appear from his description given below :—

"The scene on its face was impressed by a square seal measuring 0. 71 × 0. 71 inches, and through much use the details are far from sharp ; two nude female figures are seen, each holding with one hand a standard, from which spring on either side two conventional branches terminating in *pipal* leaves. The free hand of each figure rests on the hip and the general attitude somewhat resembles that of the bronze dancing girl found some years ago at Mohenjo-daro."[1]

Sanctity of Aśvattha. From times immemorial the *pipal* tree has been regarded extremely sacred in India. *Aśvattha*, later *pippala* (Hindi *pipal*), is one of India's greatest trees. Vessels made of it are mentioned in the Rigveda and the tree itself is constantly referred to later. It planted its roots in shoots of other trees, *e.g.*, *khadira*, and destroyed them, hence called *vaibādha*. Its hard wood formed the upper of the two pieces of wood (*aranīs*), for kindling sacred fire, the lower piece being of *śamī*. Its berries are referred to as sweet and eaten by birds, and gods are said to sit under it in the third heaven.

Aśvattha and nyagrodha (banyan) are styled the crested ones (*śikhandin*). In later Samhitas Apsaras (fairies) are spoken of as inhabiting these trees in which their cymbals and lutes resounded. Elsewhere in later literature alongwith *udumbara* and *plaksha* they are said to be the houses of Gandharvas and Apsaras[2] (Macdonell). In post-Vedic literature *aśvattha* (*pipal*) is *par excellence* the Tree of Knowledge (*Brahma-taru*) as well as the Tree of Creation and is traditionally associated with Brahmā the Creator. No Hindu would cut this tree intentionally, nor utter a falsehood while standing under its shade. In the Bhagavad Gita Lord Krishna while recounting his manifestations (*vibhūtis*) says : "I am *aśvattha* among trees."

Now, assuming that a good many religious beliefs and traditions of the Indus people were inherited by the Vedic Aryans, it may reasonably be deduced that the *pipal* god of the Indus people held some similar position even in the remote pre-Vedic age. His association with the *pipal* tree would lead us to believe that he was the creator god, the prototype of the Vedic Prajāpati (later Brahmā) and

[1]Mackay, E., Chanhu-daro Excavations, p. 150.
[2]Macdonell, A. A., Vedic Mythology, pp. 133-34.

was held in the highest esteem. With the growth of Prajāpati as the supreme deity in the Vedic times Varuna fades away.

Sir John Marshall thinks that this Indus deity, the epiphany of the *pipal* tree, is a goddess. He arrives at this conclusion partly from the alleged feminine appearance of the figure and partly on account of the seven attendant figures standing in a row in the lower field of the seal. But so far as the evidence goes there is nothing to substantiate the above conclusion. The attributes which led him to interpret the seven attendant deities as feminine are stated to be (1) the pigtail at the back of the head and (2) their tunic-like bodices.

Let it, however, be remembered that the pigtail is not an exclusively feminine wear as it is worn indiscriminately by the male as well as female deities. My own view is that this is more an appendage to the head-dresses of males than of females. Moreover, what have been described as obliquely cut tunic-like bodices on the persons of seven ministrant figures are in fact the avian bodies shown oblique at the lower end from which slender bird-like legs emerge terminating in claws.

Other Seals. There are two more representations of the *pipal* god on Mohenjo-daro seals. One of them (PL. II, 2)[1] shows a slight variation in details. Here the intermediary goat stands in front of and not behind the suppliant, and the row of ministrants consisting of only five figures is located in the upper instead of in the lower margin of the seal. On other seals also the goat occupies the same position. Behind the votary is a small table of offerings. One distinctive feature of the above Mohenjo-daro seals is that the *pipal* arch enshrining the god is inverted and looks like a split *pipal* tree in its proper position. But on the three Harappa seals noticed below the arch is closed on the top and open at the bottom with voluted ends.

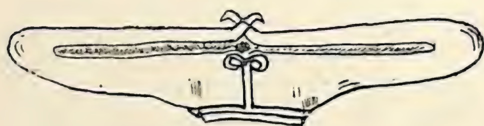
Parenthetically it may be observed that in Mesopotamia the deities standing under arched tree-coverlets were supposed to be the underworld deities. Thus Allatu, the queen of the nether world, is shown under the cover of a bent tree (PL. III, 7).[2] On Harappa seal no. 316 (PL. II, 4) the extraordinary goat appears behind the suppliant as in the Mohenjo-daro seal referred to above, with the difference that the seven ministrant figures are omitted here. The other two Harappa seals show the god under *pipal* arch on the obverse and an inscription on the reverse side. One of them, no. 387

[1]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol., III, PL. CXVI, 1.

[2]Ward, W. H., The Seal Cylinders of Western Asia, p. 53.

PLATE. III

SOME LEGENDARY SEALS FROM THE INDUS VALLEY AND MESOPOTAMIA.



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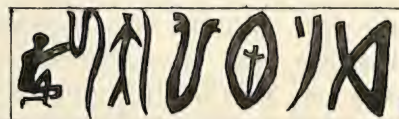


(a)



(b)

9



10

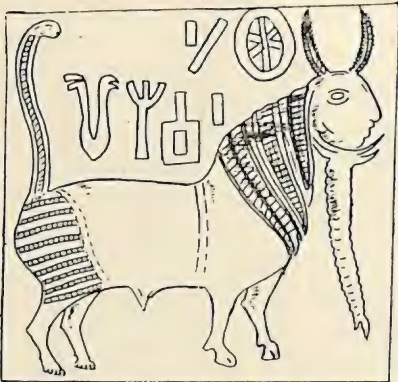
(PL. III, 4) contains on the reverse a framed *svastika* in addition to an inscription.

Fan-shaped Head-dress. It is also important to note in this connection that a common form of head-dress of the terra-cotta female figurines found in the Indus Valley is fan-shaped and in all probability appears to have been derived from the head-dress of the buffalo-headed god carved on Mohenjo-daro seal no. 420 referred to above. This also points to the supreme position of the *pipal* god whose divine symbols these females are honouring by adopting them as their head-dress. These figurines are generally supposed to be representations of the Mother Goddess, but they can as well be smaller deities holding a subordinate rank under the supreme deity.

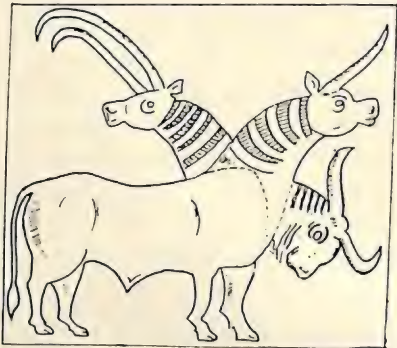
Another point worth considering is that there are a few Indus seals which show a subordinate god or votary offering a U-shaped object to the principal deity in the characteristic half-kneeling pose expressive of extreme reverence. In one case a votary is offering this object to acacia, the Tree of Life, and in another to the buffalo-headed god seated in *yogic* pose on a dais (PL. II, 8, 14 and PL. III, 10). This U-shaped object being derived from the split *pipal* tree, was symbolic of the supreme deity that resided the celestial tree of *aśvattha*. Consequently, this offering of U-shaped symbol to gods of the lower rank or to the Tree of Life by a votary or godling amounted to murmuring the invocation : "I so and so invoke thy aid in the name of the Supreme Deity."

PLATE IV

LEGENDARY SEALS FROM THE INDUS VALLEY AND MESOPOTAMIA.



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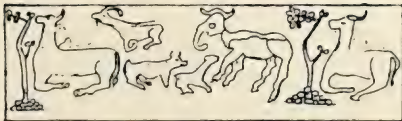
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CHAPTER IV

TREE-WORSHIP AND TREE-LEGEND IN THE INDUS VALLEY[1]

From times immemorial tree-worship has formed an integral part of the three principal religious systems of the Indo-Aryans. Its origin can now be traced back with confidence to the Indus civilization which dominated the Indus Valley for over 1,500 years.

A large number of seals and painted pottery unearthed at Harappa and Mohenjo-daro show figures of the *pipal* and acacia more frequently than some other trees of doubtful identity. They were regarded as celestial plants and supposed to be inhabited by divine spirits. The former was the abode of the Supreme Deity of the Indus Valley. On account of the extreme sanctity attaching to this plant a symbolic representation of it formed the crest of the horned head-dresses of the deities of lower grades.

Tree of Creation. It was *par excellence* the tree of creation and knowledge (*brahma-taru*) and was consequently believed to impart highest knowledge to those who donned its miniature replicas or branches on their heads. This privilege, however, belonged to the gods alone who were thought to control the destiny of the mortals. From the hoary Indus period through long vistas of the Vedic and the post-Vedic ages the sanctity of *aśvattha* continues uninterruptedly to this day in India.

Besides the *pipal* and the *śamī*, a number of other trees and plants have also been held sacred and venerated since the Vedic times. They include the banyan (Ficus indicus), *udumbara* (Ficus glomerata), *bilva* (Aigle marmelos), *khadira* (Acacia catechu), *nimba* (*nīm*), *tulasī* (holy basil shrub), *palāśa* or *plaksha* (Butea frondusa) and the lotus. Among them the *udumbara* was used for making *yūpas* and *sruvas*, banyan (*nyagrodha*) for making sacrificial bowls (*chamasas*), *khadira* for *sruvas* and amulets and *bilva*, the wood apple tree, was valued for its fruit and for making *yūpas*.[2] It may well be

[1]This article was first published in the Hindustan Times, dated April 25, 1954.

[2]Macdonell, A.A., Vedic Index, Vol. I, pp. 87, 462, 501, etc.

presumed that the unidentified botanic species painted on Indus pottery could be some of the trees enumerated above.

Vedic Description. Even more mysterious and enigmatic was the Tree of Life which figures with greater frequency on the Indus seals. It is around this magic plant that most of the adventures and mighty exploits of the gods and the national heroes of the Indus people are grouped. The *śamī* is described in the Atharva-Veda as destructive to the hair, as producing intoxication and broad-leaved. According to Macdonell these characteristics are totally wanting in the two trees, *Prosopis spicigera* and *Mimosa suma*, with which the *śamī* is usually identified. In Vedic times from its soft wood lower *aranis* were prepared, the upper ones being of the hard wood of *aśvattha*. Further, in the Dhanvantarīya Nighantu the *śamī* and its fruit are said to destroy the hair.[1]

It is worthy of note that a description of the region round about Harappa as given in the Karna-*parva* of the Mahabharata mentions that its many forests were mainly composed of the *śamī*, *pīlu* and *karīra*.[2] The *śamī* tree is usually identified with what is locally known as *jand* or *jandi*. Even now it is very abundant in those jungles and is valued for the high quality of the fuel it supplies. Its wood is heavy and compact, and not light as described in the Atharva-Veda. In many parts of India the *jand* tree is still believed to be the abode of a *devatā* and many religious ceremonies are performed under it to propitiate the indwelling spirit, specially by newly-wedded couples.

The Legend. If we piece together the fragmentary evidence available from the various seals a tree legend, similar to the one current among the Sumerians of the 4th millennium B.C., begins to emerge. There is a virtual struggle between the gods and the demons for the possession of the tree for donning its branches as crests or pigtails on their heads. There is constant attempt on the part of certain demons, either in human or animal form, to steal away the magic plant or its twigs. The tree is. however, heavily guarded by a spirit in human form who is ensconsed in its foliage to ambush the tiger-demon (PL. IV, 7).

Besides the guardian spirit who keeps an almost eternal watch over it, there are other sentinels as well who are often encountered

[1]Dhanvantariya Nighantu (Poona Edition), p. 188.

[2] शमीपीलुकरीराणां वनेषु सुखवर्त्मसु अपूपान् सक्तुपिण्डाँश्च प्राश्नन्तो मथितान्वितान् ॥
मृदङ्गानक शङ्खानां मर्दलानां च निःस्वनैः खरोष्ट्राश्वतरै श्चैव मत्ता यास्यामहे सुखम् ॥
Mahabharata Karna Parva 44, 15-38.

in this role. The most important of them all is a composite animal (PL. I, 3 ; PL. IV, 1) whose face is human but the body comprises the features of various animals, *viz.*, a centipede hangs down from the chin in the form of an elephant's trunk ; the horns are of the Brahmani bull, the fore-part of a ram, the hind part of tiger, an ever-vigilant deadly cobra stands erect in place of the tail to deal death to the raider coming up from behind. Perhaps, the horns, the head and the centipede-trunk taken together were intended to give this part of the animal the appearance of a scorpion.

Thus the body of this fabulous animal is made of seven or eight different elements. The plain meaning of this strange combination of heterogeneous elements was no doubt to invest the animal with the best traits and characteristics of all the creatures of which it is a fusion. He possesses human intelligence ; the bull's horns, besides being an effective goring weapon, show his divine character ; in his centipede-trunk he has the deadly weight and sweep of an elephant coupled with the proverbial thorny grip of the centipede. He has the virility and dash of a ram, the brutality and aggressiveness of a tiger and his tail has the deadly bite of a cobra. It is noteworthy that the tails of the dragons depicted on the libation vase of Gudea are also veritable snakes.[1]

Such a composite animal was indeed the most fitting guardian of the tree of life. A parallelism to it is afforded by a syncretic creature occurring on a cylinder seal of the Jamdet Nasr period (*circa* 3500 B.C.) found in Mesopotamia.[2] The head of this creature is that of an elephant but the rest of the body is bovine (PL. IV, 6). Standing in front of the Tree of Life he is also playing the part of a sentinel, preventing intruders from approaching the sacred precincts of the tree, while the god's pet bull merrily browses on its branches on the other side. This motif, like so many others, was no doubt borrowed by the Sumerians from the Indus Valley at a very early date since the elephant is foreign to Mesopotamia but native to India.

Three-headed Figure. Next to this composite animal is a single-bodied and three-headed animal that appears on two Mohenjo-daro seals in the role of a sentinel of the divine tree. On one of these seals his heads are those of unicorn, bison and an indeterminate quadruped with long hooked horns curving forward ; while on the second seal the third head is that of an ibex instead of unicorn's. A

[1] L. W. King, History of Sumer and Akkad, p. 76.

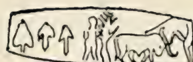
[2] Frankfort, H., Cylinder Seals, PL. VI, c.

PLATE V

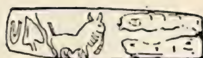
INDUS SEALS SHOWING SCENES RELATING TO TREE LEGEND.



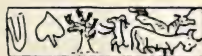
1



(a)

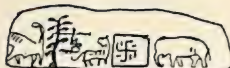


(b)

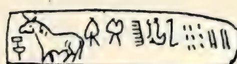


(c)

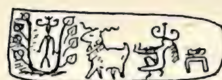
2



(a)

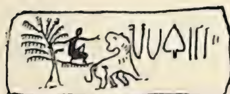


(b)

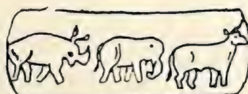


(c)

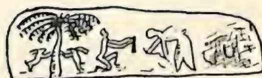
3



(a)



(b)



(c)

4



(a)



(b)

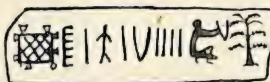


(c)

5







(a) 6 (b)

well-formed solitary figure of this queer animal appears on Mohenjo-daro seal no. 494 (PL. IV, 2). Here the unicorn-head is looking forward, the ibex-head behind and the bison-head downwards. Perhaps, the heads represent either the three times—the past, present and future, or three dangers, *viz.*, the danger ahead, the danger from behind and the danger lurking near about.

On a Mohenjo-daro sealing a bull protected by a cobra is engaged in fighting a human adversary and is thus preventing him from approaching the sacred tree (PL. VI, 3)[1]. Another terra-cotta sealing from Mohenjo-daro shows on one face an acacia tree being protected by the same bull [PL. V, 2 (*a*)][2]. The bull is engaged in fighting a mael on one side of the Tree of Life, while a man is apparently stealing its branches on the other side ; its second face [PL. V, 2 (*b*)] shows the composite guardian watching a huge monster or a tiger whom he has evidently killed in a combat or perhaps merely by his deadly look ; the third face shows the tree being guarded by the three-headed animal referred to above, while the pet deer of the god standing on hind legs happily browses on its twigs [PL. V, 2 (*c*)].

A terra-cotta sealing from Mohenjo-daro displays on obverse a scene of acacia-worship by a votary who is presenting the U-shaped object which is the symbol of the *pipal* god to the tree, while on the reverse is a cobra or a Naga deity guarding the acacia (PL. VI, 4)[3]. Another seal from the same source (PL. VII, 3)[4] shows a full-grown acacia tree being guarded by the buffalo-headed god whose symbolic head crowns a pillar standing at the entrance to the temenos. In front of the god is the sacred bull being vaulted over by a priest or ministrant in celebration of a ceremony connected with tree-worship.

A common legendary scene on a number of Indus seals is the attempt of a tiger-demon to steal away the tree or its branches. He is seen standing under the Tree of Life and looking back at the tree-spirit who sits ensconsed in the foliage on a branch or *machān* (PL. IV, 7)[5]. Grasping the trunk of the tree in one hand he hypnotizes the tiger into inaction with the other which is stretched out in a pose expressive of mockery, and then tortures him by striking the thorny branches of the tree on his back. Sometimes a spiked rod tied to the branch points down almost touching the back of the tiger.

[1]Mackay, E., Further Excavations, Vol. II, PL. XCII, *b*.
[2]*Ibid.*, Vol. II, PL. XCI, 4 *a*.
[3]*Ibid.*, Vol. II, PL. CI, 6 *b*.
[4]*Ibid.*, Vol. II, PL. CIII, 8.
[5]*Ibid.*, Vol. II, PL. XCVI, 522

The guardian spirit sits in a curious pose with one leg doubled beneath the body and the other held half-kneeling, as if whirling round and after completing each circle striking the branch with his foot, thereby driving the spike deeper into the body of the brute. The spell-bound tiger stands motionless under the tree looking back helplessly at the spirit. Thus every time the tiger-demon appears to commit the offence his evil designs are foiled by the spirit.

Demon's Success. But at least on one occasion he seems to have succeeded in stealing away two branches of the Tree of Life which he donned on his head in the shape of horns to acquire at once the divine character and long life. His success, however, was short-lived, because as soon as he turned his back on the divine tree the bull-man dramatically appeared on the scene to punish the offender. This scene is depicted on Mohenjo-daro seal no. 357 (PL. IV, 3)[1]. It will be noticed that in this case the theft was committed by the demon when the guardian spirit was absent. There is another Mohenjo-daro seal where a solitary tiger is shown with horns consisting of two thorny branches of acacia.[2]

There is quite a good number of seals on which the scene of tiger-torture figures, sometimes alone but often in conjunction with other scenes evidently forming part of the large tree legend. Those of the latter type include three sealings from Mohenjo-daro which, besides showing the tiger and the tree-spirit also throw a valuable sidelight on the story connected with the legend. One of them[3] shows on one of its faces [PL. V, 3 (*a*)] from left to right the composite animal standing with its back turned towards the acacia on which sits the spirit hypnotizing the tiger standing below, then a framed *svastika* and next to it an elephant paying homage to the tree. The second face [PL. V, 3 (*b*)] shows a unicorn standing to left with head held over an altar and an inscription of eight pictograms, while the third face [PL. V, 3 (*c*)] exhibits at the extreme left end the *pipal*-god standing inside the split *pipal* tree attended by the intermediary human faced goat and a suppliant.

Principal Deity. There cannot be any reasonable doubt that the scenes on the three faces of this sealing are supplementary to each other and constitute parts of one and the same legend. The *pipal* god on face 3 (*c*) is obviously the principal deity and the scenes on the other two faces are ancillary to it. The unicorn on face 3 (*b*) was evidently

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[1]Marshall, Sir John; Mohenjo-daro and the Indus Valley Civilization Vol. III, PL. CXI, 357.

[2]Mackay, Further Excavations, Vol. II, PL. LXXXIX, 360.

[3]*Ibid.*, Vol. II, PL. LXXXII, 1.

connected with the *pipal* god either as his vehicle or pet animal. It may safely be inferred that the acacia tree which is being guarded by the composite animal and the tree-spirit was also dedicated to the worship of the highest god of the Indus pantheon. Only subordinate gods and divine beings were entitled to wear its branches by way of crests or pigtails on their heads.

Another prismatic Mohenjo-daro sealing (PL. V, 4)[1] shows on one face the scene of tiger-torture and five pictograms ; on the second face a file of three animals, *viz.*, the rhinoceros, the elephant and the unicorn from left to right, evidently walking towards the acacia depicted on face (*c*) to pay their homage to it like the elephant on the seal referred to above ; face (*c*) shows a full-grown acacia with a rampant deer or goat browsing on its branches on either side and the tree-spirit half-kneeling on the ground facing a human figure bending towards him.

It is worth remarking that the unicorn on face (*b*) leads the procession showing its superiority over other animals and also that it was rather a one-horned fabulous animal than an ordinary double-horned bull standing in profile as surmised by some scholars.

A third Mohenjo-daro sealing (PL. V, 6)[2] shows on obverse (face *a*) from left to right first a covered ambrosia vessel, then the usual scene of tiger-torture and finally a deity with full-stretched centipede-arms ready to grip the two tiger-headed human raiders who have dared to commit the offence of rooting out the Tree of Life. It seems that soon after pulling out the tree when the raiders were ready to carry off the booty the tree suddenly split into two and the indwelling deity dramatically appeared to chastise the offenders.

Role of Scorpions. Several other scenes connected with the tree legend also occur on the Indus seals. Among them Mohenjo-daro seal no. 376 (PL. IV, 5)[3] shows a queer combination of creatures. In the centre stands the human-faced composite animal with cobra-tail held erect in the air. In front of him lies a dead tiger. To their right and left are two scorpions. The legend is very much blurred but enough remains to show that the scene is laid in the vicinity of an acacia tree whose leafy twigs are faintly visible in front of the composite animal.

[1]Mackay, E., Further Excavations, Vol. II, PL. XC, 13.
[2]*Ibid.*, Vol. II, PL, XC, 23.
[3]*Ibid.*, Vol. II, PL. LXXXIX, 376.

The role of this animal as a guardian of the Tree of Life has already been noticed above. If the dead tiger is the one who frequented the acacia for its branches then he has met his doom deservedly from the ever-vigilant guardian in a combat. Here the presence of the scorpions is not intelligible. It is interesting to observe here that Dr. E. Mackay excavated in 'A' Cemetery at Kish in Mesopotamia nine seals with representations of scorpions. Specially interesting is his seal no. 1[1] of shell on which a long-horned animal resembling an ibex figures along with scorpions (PL. IV, 4). There appears to be a fight going on between this arthropod and the animal. One of the scorpions looks as though jumping and trying to sting the ibex. It is possible that in the Indus example under reference the scorpions might have participated in the fight against the tiger-demon.

Further Evidence. Another documentary evidence supporting the presence of the tree legend in the Indus Valley is furnished by Mohenjo-daro seal no. 488 (PL. V, 1).[2] It shows two plants with bipinnate leaves between two animals. Besides, there are three flying crocodiles having avian heads with ears, each holding a fish in its beak-like mouth. Higher up are three birds on their wings. One of them with open beak appears screaming as if raising an alarm at some imminent danger. This procession of animals and birds is moving from left to right.

The two trees figuring in the scene are of an unknown variety very dissimilar to acacia and it is difficult to identify the two animals. The horns of one of them curve backward and of the other forward. They may be the privileged pet deer of the buffalo-headed god who enjoyed full liberty to graze on the Tree of Life. The corcodile holding a fish in its jaws is a common occurrence on the Indus seals, but it is always in its realistic form and not bird-headed with projecting ears as shown in this seal.

Homage to Tree. One more possible illustration of the tree legend is a prismatic sealing from Mohenjo-daro which exhibits on each of its three faces an interesting scene (PL. V, 5).[3] One of the faces (*c*) shows at extreme left end an acacia tree flanked by two rampant deer nibbling at its branches, while the three-headed chimaera keeps watch over it at the right end . The other two faces (*a* and *b*) have files of animals proceeding from left to right for paying homage

[1]Mackay, E., A Sumerian Palace & the 'A' Cemetery at Kish, Part II. PL. XLII.

[2]Mackay, E., Further Excavations, Vol. II, PL. XCVI.

[3]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. III, PL. CXVI, 14.

to the tree. They include elephant, rhinoceros, leopard (?), tiger, bison, goat, an indistinct quadruped, a crocodile holding a fish in its jaws, a tortoise and a fish. It looks as if the whole animal world has joined the procession to adore the divine tree and the crocodile seems to have brought a fish in its jaws as an offering to the indwelling deity. The fact that the carnivores and the herbivores are marching together in perfect harmony obviously implies the pacific atmosphere pervading the sacred precincts of the holy tree.

A terra-cotta sealing from Mohenjo-daro [PL. III, 9(*b*)][1] has on obverse an acacia tree in the centre with a framed *svastika* on the left and an inscription of three pictograms on its right side. Association of acacia with *svastika* also occurs on another seal described above. Being an auspicious symbol, its juxtaposition with the divine tree was intended to ensure additional safe-guard against any possible danger to the latter. On its reverse is shown a crocodile holding a fish in its jaws, probably an offering for the god inhabiting the tree. The sanctity of *svastika* appears already well-established and deep-rooted even at this remote period.

Tiger and Man. It would be interesting to mention here a very important seal which Dr. Mackay excavated at Chanhu-daro from early Harappan deposits (PL. IV, 8)[2]. In the upper field it shows the Tree of Life and three pictograms. Lower down is a tiger with its tongue sticking out and almost touching the mouth of the tree-spirit who is sitting in his characteristic half-kneeling pose with one arm held akimbo and the other extended towards the tiger in mockery. According to Dr. Mackay, the tiger is licking the face of the man, perhaps in anticipation of the feast, and the man is invoking the tiger for mercy.

So far as the tree legend goes, his explanation does not fit in the scheme. Here the man is not the victim of the tiger but the case is just the reverse. After hypnotizing the tiger into inaction the spirit has come down the tree and is going to take away the life of the brute by sucking up its tongue. His fearless half-kneeling pose amounting to *vīrāsana*, and his utterly defiant attitude clearly point that it is the tiger that has fallen a victim to the tree-spirit.

A large number of seals and seal impressions from the Indus sites depict acacia alone, with or without an inscription. A few of them show it enclosed by a railing, the most striking example of which is

[1]Marshall, Mohenjo-daro and the Indus Valley Civilization III, PL. CXVI, 20.

[2]Mackay, E., Chanhu-daro Excavations, PL. LI, 18.

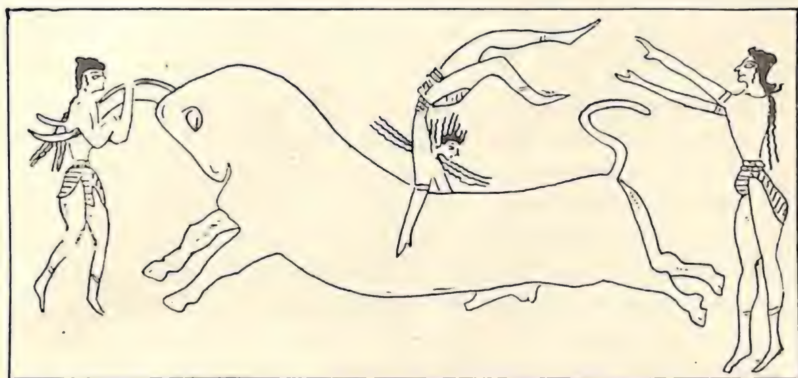
afforded by Harappa sealing No. 325 (PL. III, 5).[1] Another sealing from the same source shows it surrounded by a platform.

The tree-worship is very old in India. Its persistence in historic times clearly shows that the ancient traditions relating to this cult were later incorporated by the Hindus in their religious system in a slightly modified form. The animistic superstitions attaching to the worship of trees, such as their being haunted by spirits and godlings, which are found throughout India even today, have their roots in the prehistoric past represented by the Indus culture. The scenes of animal files approaching the sacred tree are very much reminiscent of the Buddhist Jataka stories where animals bring offerings of garlands, etc., to the Bodhi Tree or the *stupa*, the symbol of ultimate Buddhistic goal, the *Mahāśūnya*.

[1] Vats, M. S., Excavations at Harappa, PL. XCIII, 325.

PLATE VI

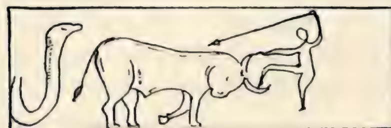
SACRED GAMES OF VAULTING-OVER-THE-BULL IN MINOAN CRETE AND THE INDUS VALLY.



क 1



ख 2



ग 3



घ 4

CHAPTER V

THE INDUS VALLEY AND ANCIENT CRETE[1]

The discovery of the Indus Civilization in the thirties of the present century has opened new vistas of research for the student of archæology. It has placed at his disposal undreamt of wealth of material evidence which has not only changed the complexion of the early history of India but has also laid a firm foundation for comparative study *vis-a-vis* the contemporary cultures of the Middle East. Now it can be asserted definitely that the Indus Valley was in contact with Sumer, Elam and Iran from the first half of the fourth millennium B. C. to the first quarter of the second millennium B C. Prof. Childe rightly remarks that India's cultural contribution to the contemporary civilizations of the Middle East was far greater than theirs to her. More objects of Indian origin have come to light in those countries and very few of foreign origin have been recovered in India. In the art of writing and ceramic industry India was far ahead of Sumer and Elam in the middle of the third millennium B. C. and on account of her superior art traditions she was continuously supplying models to the neighbouring countries.

Bull-grappling Sports. In the present article I propose to discuss the significance of an important pre-historic link between the Indus Valley and the Minoan Crete. The credit of the discovery of this cultural relationship between the two countries goes to Dr. C.L. Fabri who, as early as 1935, published a note on it in Archæological Survey of India's Annual Report for the year 1934-35 under the caption, "The Cretan Bull-Grappling Sports and the Bull-Sacrifice in the Indus Valley Civilization."[2] Though I generally agree with him in respect of details, I have serious differences with him so far as vital points and the final conclusions are concerned. The material evidence round which this discussion gravitates is furnished by a number of seals and seal impressions found in the excavations at Mohenjo-daro. They include two steatite seals and three terra-cotta sealings, the outline copies of some of which are given below in Figs. 3-6 of Plate

[1]This article was first published in the Hindustan Times, dated Nov. 8, 1953.

[2]A. R. A. S. I. for 1934-35, pp. 93-100.

VII. For drawing comparisons between the legendary scenes on the above seals and the Cretan parallels Dr. Fabri cites a number of examples of frescoes, reliefs and sealings from the Minoan Palace at Knossos in Crete, some of which are reproduced below in figs. 1-2 of Plates VI and VII.

The main points of comparison are that in the Minoan Crete a ritual was performed in honour of the Mother Goddess in which dare-devil young acrobats, men and women, participated. At great risk of their lives they grappled with and vaulted over the sacred bull in the arena and ultimately sacrificed the animal to the goddess. While dealing with the Indian evidence he observes, "like the Cretan, the Indus ritual also consisted of two parts, namely, (1) the bull-grappling games and (2) the subsequent sacrifice of the bull to the Mother Goddess."[1] So far as Cretan examples are concerned I fully agree with his explanation of the details. But his interpretation of some of the main features of the Indus seals does not completely accord with the actual details as delineated on them.

An Interpretation. Referring to fig. 3 of Plate VII, Dr. Fabri says, "the left hand sealing can be divided into two halves, the left half showing a tree, a platform, a pillar and a bird is of the utmost importance and constitutes the crowning corroboration of all my comparisons in this article ; and in the right half of this sealing is shown a bull, in charging attitude, lowering its head. A portion of this sealing is broken off, yet a hand and the arm of an acrobat above the horns are distinctly visible. Here is a person about to catch the horns of the bull exactly like the lady on the left of fig. 1 of PL. VI. A second acrobat is shown, again as on the Cretan examples, alighting on the back of the bull with skilful jump no doubt in order to gain fresh purchase for the final landing in the arena. The performer is in every respect identical with those of the Minoan sports."[2]

The comparison between this seal and the Minoan representations is only partial. In the latter we do not find a single instance where acrobatic sports are being performed in front of the Sacred Tree. On a close examination the Mohenjo-daro sealing No. 9281 (PL. VII, 3)[3] reveals a doubt whether the object above the head of the bull is really a hand ready to grasp the horn or something else. Further, in the Minoan examples there is an intermediate stage of a

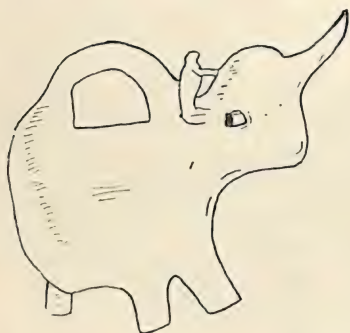
[1]A. S. R. for 1934-35, p. 93.

[2]*Ibid*, p. 95.

[3]Mackay, E., Further Excavations, Vol. II, PL. CIII, 8.

PLATE VII

CRETAN BULL RHYTONS AND INDUS SEALS SHOWING 'VAULTING-OVER-THE-BULL' SCENES.



1



2



3



4



5



6

temporary poise on the animal's back between two stages of the performance, *viz.*, the initial start and the final landing in the arena. On the Indus Seal illustrated in fig. 3 of PL. VII there is no such stage. The acrobats are vaulting over the animal straight-away without touching its back. In the right hand compartment of this representation the performer has taken his start from the front side of the bull and with a single mighty jump he is clearing the animal in order to land on the other side.

The final phase of the ritual drama was the offering of the dead body of the bull to the shrine of the goddess. In support of it Dr. Fabri refers to fig. 2 of PL. VI which is an outline copy of the fresco painting published in Evan's work[1]. Here the sacrificed bull is placed on the table and the ministrant lady, accompanied by two attendants, is offering the victim to the Mother Goddess. The goddess is symbolized by the Holy Tree and in front of it is an obelisk surmounted by the double-axe on which is perched the Sacred Dove.

Tree Legend. Dr. Fabri strongly believes that in the Indus Valley, too, the acrobatic feats alluded to above, likewise terminated in the sacrifice of the bull or buffalo. In confirmation of it he cites three Indus seals and sealings reproduced here in Nos. 3 (PL. VI), 4 and 6 (PL. VII). There is no doubt that here a man is seen spearing a bull or buffalo, but there is not the slightest indication to show that the scene represents the sacrifice of the animal to the Mother Goddess. It may merely signify a combat between an animal and a warrior. In sealing No. 3 (PL VII) there is an acacia tree, but this tree can hardly be associated with the above goddess in any of the Indus seals. We are, however, aware of the Tree Legend in the Indus Valley similar to the Sumerian Legend. It is also well known that the Indus people held the twin trees of acacia and *pipal* sacred and even worshipped them, the one being the Tree of Knowledge or Creation and the other the Tree of Life. There was a constant struggle on the part of the demons to take possession of the divine Tree of Life for donning its branches on their heads whereby they could defy death and become invincible. On the Indus seals such representations are frequent where a tiger-demon tries to steal away a branch of the tree but his evil designs are foiled by the ever-vigilant Tree Spirit. Incidentally, it may be pointed out that the Tree Spirit does not have arms shaped like

[1]Evans, Sir Arthur, Palace of Minos at Knossos Vol. IV, p. 41, figs. 24-26.

tree-branches as suggested by Dr. Fabri, but centipede-arms as shown by me in my previous article entitled the 'Buffalo-headed God of the Indus Valley.'[1] Apart from the Tree Spirit, there were other guardians of the Divine Plant, *e.g.*, the bullman, the composite creature, the three-headed chimera, etc. It is just possible that in the sealing (PL. VII, 6) cited by Dr. Fabri, where bull is being speared by a man, the animal may only be a sentinel of the tree and the man with spear an intruder. This interpretation finds support from the circumstance that in one of the Indus seals a cobra is seen behind the fighting bull (PL. VI, 3)[2]. I do not think that the cobra in this solitary instance can be taken to be a symbol of the Mother Goddess, as suggested by Dr. Fabri, because it figures nowhere in this role on any of the Indus seals. On the other hand, it may be a Naga deity as evident from two identical seals from Mohenjo-daro (PL. II, 8) where each of the attendant deities flanking the buffalo-headed god is protected by an upright cobra on the backside. There is another Indus sealing on which a cobra with its head resting on a stool is guarding the Tree of Life (PL. VI, 4)[3]. In the light of the above evidence I venture to suggest that the bull may be a semi-divine being in animal garb giving fight to the intruder, the spear-man, and thereby protecting the sacred tree. In Mohenjo-daro sealing No. DK 4547 (PL. VII, 6)[4] three human figures behind the tree are explained by Dr. Fabri as 'three lady attendants, probably waiting to offer the sacrifice in much the same manner as in the fresco reproduced in fig. 2 of PL. VI'. His interpretation is based on pure conjecture.

Next Dr. Fabri comes to the scene shown in fig. 3 of PL. VII. This, according to him, is the crowning corroboration of his theory that the Cretan performance in honour of the Mother Goddess was the prototype of the Indian ritual, implying that it was borrowed by the Indus people from the Minoan Crete. He says that the sealing reproduced in the left hand compartment of this figure (PL. VII, 3) repeats every important detail of the Minoan ritual. For example, "here is the Sacred Tree in the temenos as in Crete ; here again is the pillar rising from the platform, with the two horns as so often found in the shrines of the Mother Goddess of Crete ; and here is

[1]See p. 9 *Supra*.

[2]Mackay, E., Further Excavations, Vol. II, Pl. XCII, *b*.

[3] *Ibid.*, Vol. II, PL. CI, 66.

[4] *Ibid.*, Vol. II, PL. XCI, 4*a*.

even the Sacred Bird of the Mother Goddess, seated upon the pillar before her tree, again exactly as in Crete."

After a minute study of the seals in question my feeling is that the main details vitally concerning the issue do not support Dr. Fabri's interpretation. There is no doubt that the Sacred Tree is surrounded by the enclosure, there also seems a pillar at the entrance of the enclosure. But there is neither the Sacred Bird of the Mother Goddess on the top of the pillar nor any other sign or symbol emblematic of her. The pillar is surmounted by a buffalo-head in profile from the centre of whose horns rises a spray of the *pipal* tree, the symbol of the Pipal God, the Supreme Deity of the Indus people. This horned buffalo head with *pipal* spray crest represents the buffalo-headed god whose full form occurs on Seal No. 420. Under the benign gaze of this presiding deity the sacred ritual of vaulting-over-the-bull is being performed by a priest. Obviously the acacia tree figures in this context as the holiest and the most conspicuous object which even the gods thought it their privilege to guard and honour. There is, however, nothing to suggest that it symbolized the Mother Goddess in the Indus Valley as it did in ancient Crete. Perhaps, to judge from its association with the buffalo-headed god, the tree was sacred to that deity, just as the double-axe and the dove symbols crowning the Minoan pillar were sacred to the Mother Goddess in Crete.

Conclusions. Despite the fact that the correspondences between the Indus and the Cretan representations are not very close, there is certainly an identity of ideas running through them. There can be no two opinions regarding the kind of the sacred sport of vaulting-over-the-bull as displayed in the pictorial art of the two countries so remote from each other in space. Nor is it possible to conceive that such a remarkably cognate ritual could have originated in the two countries independently without inspiring or influencing each other in some way. However, the crucial point before us is to consider whether it was the Minoan Crete that lent the prototypes of this sport to India as suggested by Dr. Fabri, or whether its reverse could have been the case. If we accept his view it would be difficult to reconcile the chronological disparity involved in this hypothesis.

Chronological Evidence. The earliest evidence of bull-grappling sports in Crete is afforded by the bull-rhytons showing small figures of men clinging to their horns (PL. VII, 1, 2)[1].

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[1]Evans, Sir Arthur, Palace of Minos at Knossos, Vol. I, Figs. 137 *b, d.*

Evans reads in these rhytons an allusion to the sports of the bull-ring which became prominent in the Late Minoan Age. They belong to the Middle Minoan I (*circa* 2111-1900 B.C.) and there is no reference to these sports earlier than this date. But at this date the sports were only cow-boys' physical feats of grappling with wild bulls in the open country and had not yet attained the status of sacred sports dedicated to the Mother Goddess. Even as early as the first half of the Middle Minoan III the bull-grappling was still a cow-boy's sport as evident from the representation in Fig. 274 of Evans' volume. It was only towards the latter half of the Middle Minoan III that these games gradually began to assume the shape of sacred performances culminating in the Late Minoan Age in the bull-ring games to be performed in the arena in honour of the Mother Goddess. The dates of the Middle Minoan III and the Late Minoan Ages as computed by Sir Arthur Evans are *circa* 1750-1580 B.C. and 1580-1200 B.C., respectively.[1] But the date assigned by Dr. Fabri to the Middle Minoan and the Late Minoan Ages jointly is *circa* 2500-1500 B.C. which being at variance with the dating of Evans is totally wrong. The true date as given by the latter scholar for the above two ages is 2100-1580 B. C. for the Middle Minoan and 1580-1200 B.C. for the Late Minoan. Each of these ages is sub-divided into three periods by the excavator. As the sacred character of the bull-grappling and bull-sacrifice ritual in honour of the Mother Goddess first appears in the Middle Minoan III and runs throughout the Late Minoan, the correct date for these games would be *circa* 1750-1200 and not 2500-1500 B. C. as given by Dr. Fabri which is a highly exaggerated figure.

For comparisons between the Minoan Crete and the Indus Valley we have to bear in mind the correct date as given above by Sir Arthur Evans regarding the origin and popularity of these games in Crete. If Crete ever influenced the Indus Valley in the matter of these games this must have happened between *circa* 1750-1200 B. C. But during this period the Indus Civilization had practically ceased to exist. On the other hand, the Indus seals cited by Dr. Fabri in favour of his theory belong to the early period and prove high antiquity of this ritual in the Indus Valley. For instance, the seal reproduced in fig. 3 (PL. VII) has come from low levels and is thus assignable to the last quarter of the fourth millennium B. C. The other three seals and sealings published by him under his fig. 6 (my figs. 4 & 6, PL. VII) which came from upper levels are datable to

[1] Evans, Sir Arthur, Palace of Minos at Knossos, Vol. I, p. 26.

the middle of the third millennium B. C. Consequently, the seal appearing in fig. 3 is very crucial so far as the vaulting-over ceremony is concerned. Here we see that the human figure flying over the animal is wearing a pigtail which was an exclusive head-gear of deities, demi-gods or priests. So the performance of this ceremony by the priestly figures, and in one case in front of the Sacred Tree under the very gaze of the buffalo-headed god, is proof positive of the fact that here in the Indus Valley this sport had already acquired sacred character at the end of the fourth millennium B. C. This high date of the ritual in India would in itself be an answer to the question whether Minoan Crete of the period between *circa* 1750-1200 B. C. could have supplied to the Indus Valley of the fourth millennium B. C. the prototypes of the bull-grappling sports or whether its reverse was actually the case. Another noteworthy point is that Minoan Crete itself was never the originator of these games. Sir Arthur Evans has himself unequivocally stated that the earliest evidence of bull-grappling sports is found on a Cappadocian cylinder seal datable to *circa* 2400 B. C. and that the Cretan bull-rhytons also have oriental origin. All this points to the direction from which Minoan Crete got its inspiration and the prototypes of these sports which eventually acquired sanctity and became so popular in the Late Minoan Age.

Oriental Origin. It was not in the matter of these sports alone that Minoan Crete was indebted to the Asiatic mainland. There are other elements as well which she derived from this quarter. For example, the earlier dominant element in the island's population was of the Anatolian type to which the name Armenoid may be given. The cult of the Double Axe, the Mother Goddess, the stone mace, the chariot and horse were also borrowed by the Cretans from the same source. Likewise the little island was indebted in no small measure to the great Egyptian Civilization in many respects as revealed at every step by the excavations of Sir Arthur Evans. It is a patent fact that during its long chequered history of about 2,200 years (*circa* 3400-1200 B. C.) the cultural currents and cross-currents from the higher civilizations of Asia were reaching the shores of the island and moulding its destiny imperceptibly. Leavened by these foreign influence it evolved in later times am individualistic civilization of high order and in turn profoundly influenced the cultures of the pre-Hellenistic Greece and other neighbouring countries of the Mediterranean basin.

It becomes obvious then that the cult of the Mother Goddess and her symbols—the double-axe, the dove, the tree, the bull-rhytons,

the bull-grappling sports, etc., were all derived by the Minoan Crete from the mainland of Asia. The latter region itself was the playground of diverse cultural forces let loose by the higher civilizations of Mesopotamia on the one hand and the Dynastic Egypt on the other. It is in this wider context that we have to study the movements of the cultural ideas and traditions from one country to another. The Indus Valley Civilization in its mature phase (3000-2300 B. C.) was in direct contact with the centres of higher civilizations of Western Asia. It was during this period that a free exchange of ideas and cultural elements between the Indus Valley and Western Asia took place. There can hardly be any doubt about the fact that Crete borrowed her cultural ideals from her more civilized neighbours. Evidently Crete of the Middle Minoan III period which herself borrowed the cult of the Mother Goddess with its adjuncts from Asia could not have supplied the prototypes of the bull-grappling sports to the Indus Valley where they were already in vogue a thousand years earlier. So far as the recorded evidence goes, it appears that the Indus Valley was the original home of these sports. It may be presumed that their origin took place some time at the end of the fourth millennium B. C., and when the Indus Civilization attained maturity in the first half of the third millennium B.C., they migrated westward. It was but natural that in this transitional period environmental and ethnic causes should have wrought some transformation in them. Let it be anticipated that further exploration in Western Asia may at some future date reveal missing links attesting to the westward diffusion of these Indian sports which eventually reached Crete in the beginning of the second millennium B. C. and became associated with the cult of the Mother Goddess.

PLATE VIII

MOTHER GODDESS FIGURINES, BHITA SEALING AND OTHER OBJECTS.



क 1



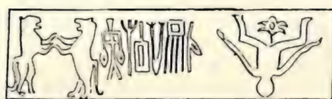
ख 2

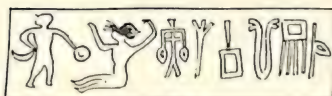


ग 3



घ 4

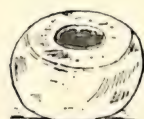




ङ 5



च 6



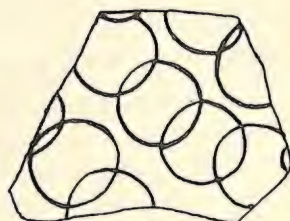
छ 7



ज 8



झ 9



ञ 10

CHAPTER VI

MALE GODS OF THE INDUS VALLEY[1]

From a well-documented archæological record it is now possible to conclude that ethnically and culturally the authors of the Indus civilization were akin. This conclusion finds ample support in the evidence revealed by the exploration of the three main sites of the Indus Valley, *viz.*, Harappa, Mohenjo-daro and Chanhu-daro. It has also been well-established that they followed a common religious system and held cognate eschatological views in respect of future life.

In his monograph "Mohenjo-daro and the Indus Valley Civilization" Sir John Marshall deals with the religion of the Indus people very elaborately, but his conclusions, based as they are on misinterpretation of many legendary seals, lose much of their value and are consequently unacceptable. The antiquarian material that enabled the excavators to piece together a patchy account of this important subject comprises seals, sealings, inscribed copper tablets, stone statuettes and terra-cotta figurines.

Mother Goddess. According to Sir John Marshall the foremost among the Indus pantheon was the Mother Goddess. Innumberable terra-cotta female figurines recovered from the Indus sites are said to be her representations. Kindred figurines have also been recorded from prehistoric sites of the Kulli culture in South Baluchistan and from the Zhob Valley of the north, but unlike the Indus specimens they are legless stumps (PL. VIII, 3). The Zhob examples wear hoods over their heads whereas the Kulli figures have a series of necklaces on their persons (PL. VIII, 4)[2]. The faces of the former are hideous, eyes cavernous and the mouths grinning like skulls.

Mother Goddess models are said to have been found all over Western Asia and round the Aegean coasts, notably in Elam, Mesopotamia, Transcaspia, Asia Minor, Syria and Palestine. In the opinion of archæologists the range of her cult at one time extended without break from the Indus to the Nile.

[1]This article was first published in the Hindustan Times, dated July 4, 1954.

[2]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. I, PL. XII, 4, 6.

"But in no country," says Sir John, "the worship of the Divine Mother is so deep-rooted and universal as in India where she became a prototype of the 'Cosmic Energy' (Prakriti) and the counterpart of the 'Cosmic Soul' (Purusha). Her worship which originated in a matriarchal society in course of time formed the basis of later Śāktism."[1] He concludes with the remark that as a result of their long association with the aborigines the Aryans assimilated this cult and ultimately incorporated it in their own religion. "In the Vedic mythology," he further observes, "goddesses played only a subordinate part, the principal deities were exclusively male."[2]

Known to Vedic Aryans. Against this view of Sir John, it can well be argued that the idea of Mother or Earth Goddess was well known to the Vedic Aryans. From the Rigvedic times onwards she is recognized as the fundamental energy underlying all creation. At first she appears as *Prithivī* as is explicit in the expression '*Dyāvā-Prithivī*', the twin deities, to whom many of the early hymns in the Rigveda are dedicated. Then she is eulogized as Aditi—a mysterious creative power responsible for manifestation of all life. In late and post-Vedic literature she takes the form of Prakriti which in conjunction with her counterpart, Purusha, is held to be the basic cause of all universal activity. From Pauranic times up to the present day the same cosmic power is being worshipped in India under the comprehensive term 'Śakti' with Durga, Gauri, Kali, etc., as her numerous emanations. Is it not then legitimate to infer that the Śāktism of la er times was but a natural outgrowth of the germinal ideas inherent in the cult of Prithivī and Aditi current in Vedic times? If we take this reasonable view the common presumption of the Indologists that the Vedic Aryans borrowed this cult wholesale from the aborigines is considerably invalidated.

No doubt, the principal deities of the Vedic Aryans were male, and the female ones played only a subordinate part. But, then, the same was also true of the Indus people. Their principal gods were mostly male and goddesses played but an insignificant role. For example, the Pipal God, possibly the prototype of the Vedic Prajāpati, was the supreme deity of the Indus pantheon and his seven attendant messengers—the winged sky-gods—were also male deities of the composite form (PLl. II, 1).

Like their Sumerian counterparts they are bird-men, human in

[1]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization Vol. I, p. 51.

[2]*Ibid.*, p. 51.

the upper part and avian in the lower. Next to him was the buffalo-headed god, a strange compound of heterogeneous elements. His horned head is that of a buffalo, arms are veritable centipedes, thorax is tigrine and the part below waist is an intriguing combination of two looped cobras [PL. I, 1(*a*)]. This god occurs on a number of other seals in a slightly modified form and was no doubt very popular in the Indus Age. Another composite male deity of the Indus pantheon is depicted on a Mohenjo-daro seal (PL. II, 6). His body above waist is human with goat's wavy horns on head but avian below with the distinctive feature that a headless tiger had been added on to the waist to form the back portion.

Other anthropomorphic deities represented on the Indus seals are almost all male. The familiar tree-spirit figuring on a number of seals in the act of hypnotizing the tiger-demon is masculine in appearance and the same is true of the indwelling spirit of the acacia, trying to throttle with his centipede-arms the two tiger-headed demons ready to carry away the Tree of Life which they had rooted out [PL. V, (6*a*)].[1] A number of seal-amulets show the bull-man and semi-bovine super-human beings which are invariably endowed with masculine traits (PL. II, 7)[2]. Against this positive documentary evidence it would indeed be wrong to affirm that female element was dominant in the Indus religion.

Cult of Female Deity. As to the Mother Goddess the is nowhere in evidence in the glyptic art of the Indus period. The only evidence that can be construed to point to the cult of female deity is provided by the crude terra-cotta female figurines wearing elaborate head-dresses, neck ornaments and a skirt secured by a girdle round the waist (PL. VIII, 1, 2)[3]. But these uncouth clay models can hardly have any legitimate claim to represent the Mother Goddess or the principal female deity of the time. Their head-dress is usually a fan-shaped or arched frame-work of some light material such as wood or wickerwork. On either side of it at the temporal region is a pannier-like appendage and below it a conical boss. This framework is often secured in its position by strands of plaited locks coiled round across the ears. Generally the Indus figurines are in standing pose and their arms hang at ease parallel to the body (PL. VIII, 1). But some of those wearing arched head-dresses are seen raising their arms

[1]Mackay, E., Further Excavations, Vol. II, PL. XC, 23*b*.
[2]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization Vol. III, PL. CXI, 366.
[3]*Ibid.*, PL. XCV, 26 and PL, XCIV, 14.

to the level of the head and touching their foreheads with both hands as though in a saluting pose (PL. VIII, 2)[1].

So far no satisfactory explanation has come forth either for tht peculiar shapes of the head-dresses or for the queer pose of the hands held in a saluting attitude. Several years back Dr. E. Mackay vaguely hinted at the similarity between the fan-shaped head-dress of these figurines and the crest of the so-called Paśupati form of Śiva figuring on Mohenjo-daro seal No. 420 (PL. I, 1*a*). Likewise, Dr. C.L. Fabri derives the arched head-dress of the Indus figurines from a Cretan source. According to him the volutes in this type of head-dress represent stylized doves seen perched on the horned head-dress of the Cretan Mother Goddess. It would indeed be a far cry to ascribe its origin to a Minoan source, specially when the volutes on the Indus figurines do not have the remotest likeness to the Cretan sacred dove.

Similarity of Dress. It must, however, be admitted that the suggestion of Dr. Mackay regarding similarfty between the fan-shaped head-dress of the Indus figurines and the crest of the buffalo-headed god was made on the right lines. In a previous article[2] I have dwelt at some length on the evolution of the fan-shaped head-dress of the above deity from the complicated pipal motif depicted on Mohenjo-daro seal No. 387 (PL. I, 5) a stylistic representation of which also occurs on a seal from Chanho-daro (PL. II, 3).

These female figurines with fan-shaped head-dresses may then have represented some minor goddess which, like the buffalo-headed god, held a subordinate position under the Pipal God, the supreme deity of the Indus age. This fact is also confirmed by the figurines shown in a saluting pose as referred to above (PL. VIII, 2). It is not a mere accident that only the figurines wearing arched head-dresses appear in the saluting posture. There was obviously some connection between this head-dress and the pose of the hands. Be it noted that this head-gear presents a striking similarity with the inverted pipal arch in which the Pipal God is shown enshrined on the Indus seals (PL. II, 1) and as such it could be symbolical of the above deity. The saluting gesture suggests that she is adoring the divine symbol which she is carrying so devoutly on her head.

Thus the head-dress and the saluting pose of the female figurines from the Indus Valley indicate beyond doubt that the clay models

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[1] Vats. M. S., Excavations at Harappa, Vol. II, PL, LXXVII, 51.
[2] See pp. 3-4 Supra.

represented a minor deity and not the Mother Goddess as held by Sir John Marshall and other Indologists.

Glyptic Art. In support of his Mother Goddess theory Sir John cites additional evidence from the glyptic art of the Indus Valley. He believes that this goddess is also portrayed on a number of seals from Harappa and Mohenjo-daro. A common legendary scene encountered on several seals depicts, as already pointed out, a deity enshrined in a split pipal tree attended by seven semi-divine messengers, a composite-goat and a votary (PL. II, 1). In the opinion of Sir John and Dr. Mackay, the pipal deity, the votary and the seven messengers are all females. The principal deity is nude but the seven messengers are said to be dressed up in tunics.

Another feature alleged to point to their feminine character is the 'pigtail'. Now it can definitely be proved that none of these presumptions can stand the test of scrutiny. The pigtail, apparently a twig of the Tree of Life, usually formed an appendage to the head-dress of the male deities. It was an artificial addition and not a plaited braid peculiar to the styles of female hair-dressing. Moreover, the seven attendant messengers are not clad in anything like tunics. They are fabulous creatures, partly human and partly avian, with centipede-arms. Like the Sumerian bird-men they are definitely male deities.

The same composite features are also noticeable in the figure illustrated on Mohenjo-daro seal No. 347 (PL. II, 6) with the difference that in this case a headless tiger has been tagged on to the back of the deity. The spiral horns on his head are those of a hill-goat and it is difficult to say whether the entire head is that of a goat or only goat's horns have been added to human head. There is nothing definite about its form to prove that it was a female deity, rather the evidence points to its being of the opposite sex. Dr. Mackay feels doubtful about the sex of this deity. He says that if female, she is perhaps Durga, the consort of Śiva whose representation occurs on Mohenjo-daro seal No. 420 ; if male, then it can be Śiva himself, because he is often shown seated on a tiger's skin. This interpretation of Dr. Mackay is far from being convincing since it ignores the vital facts that (1) the so-called Paśupati form of Śiva referred to above is virtually a buffalo-headed composite god, and (2) the hybrid form of the deity on seal No. 347 has centipede-arms and avian body below the waist.

Further evidence adduced by Sir John Marshall in favour of the Mother Goddess theory is said to be provided by the Harappa sealing

No. 304 (PL. VIII, 5)[1]. On its obverse (5*a*) is a nude female hanging upside down with legs wide apart and some obscure object issuing from her womb, whereas the reverse (5*b*) shows a man armed with a dagger ready to strike a fallen woman who is imploring for mercy. According to his reading the female on the obverse is the Earth Goddess giving birth to a plant and the scene on the reverse depicts human sacrifice in honour of the above goddess. In comparing this scene with the one on a terra-cotta sealing from Bhita[2] he says 'the goddess is shown with legs in much the same posture, but with a lotus issuing from her neck instead of from the womb' (PL. VIII, 6).

I find it difficult to endorse the view of Sir John as set forth in the above interpretation. In my opinion the scenes on its two faces most probably depict horrors of the underworld or hell to which the evil-doers were believed to be subjected. The female hanging upside down can by no means represent the Mother Goddess, because the object seemingly issuing from her womb is not a plant, nor can it normally be explained why was it necessary for her to hang upside down for giving birth to a plant. Its comparison with the Bhita sealing is far-fetched. In the first place the Bhita find being of the early Gupta period is separated from the Indus age by no less than three thousand years ; secondly, the goddess depicted there is seated in the normal pose and not upside down. Thirdly, what is described as plant looks more like an insect of the arthropod family or perhaps it is a barbed instrument of torture. At the left end of the same face are two rampant tigers which presumably represent the evil genii or tiger-demons guarding the Hades. They may be the demons of the under-world whom Gilgamesh-like hero is seen dompting on two Mohenjo-daro seals (PL. II, 7). The scene on the reverse showing a man ready to decapitate a suppliant woman may also be another hell scene instead of 'human sacrifice in honour of the Mother Goddess.' Possibly the two females shown on the obverse and the reverse of the sealing are one and the same person being punished on separate counts. It is worthy of note that the tiger-demons of the Indus Valley show remarkable similarity with the 'earth-lion' of the Sumerian mythology. A pre-Dynastic Sumerian legend narrates that when Gilgamesh was returning from Hades to the world of mortals after securing the 'plant of life' it was stolen on the way by the 'earth-lion'[3]. On this analogy it would be reasonable

[1] Vats, M.S., Excavations at Harappa ,Vol. II, PL. XCIII, 304.

[2] A.S.R. for 1911-12, PL. XXIII, 40.

[3] Mackenzie, D. A., Myths of Babylonia & Assyria, p. 172.

to associate the tiger-demons of the Indus mythology with the underworld or the Hades.

Lingam-worship and Mother Goddess. It would not be out of place to refer here to another important phase of the Indus religion. Countless conical and annular objects of various sizes and materials have been exhumed at Harappa and Mohenjo-daro. The largest cones are in stone and measure about 2 to 3 ft. in height and 9 to 10 inches in basal diameter (PL. VIII, 8). They are all plain but the smaller ones also include painted, ribbed and fluted cones and many have sockets on the underside. Sir John Marshall holds that majority of them were cult objects and represented phallic emblems. The large stone rings (3 to 4 ft. in diameter) must have been employed as protective and luck-bringing amulets to satisfy animistic beliefs (PL. VIII, 7, 9). A large hoard from Harappa comprised about 600 circular and pyramidal terra-cotta cones which were holed on the underside and bore polychrome paint all over the body. Their uniform size (1 inch height) and painted bottoms suggest that they must have served some decorative purpose. In the fifties of the last century Loftus found at Warka in Mesopotamia a large number of small clay cones decorating the exterior of a pre-Dynastic wall. Recently similar finds were also made by Dr. Frankfort at Tell Asmar in the same region.[1] It appears that in the Indus Valley too majority of small cones with plain or socketed bottoms were employed for identical purposes. Nevertheless, the discovery of large stone cones proves beyond dispute that *lingam*-worship was known to the Indus people. But this cult does by no means imply the dominance of the Mother Goddess in the Indus religion because in *lingam*-worship the male element holds definitely a superior position.

A careful investigation of the documentary evidence so far available inevitably leads to the conclusion that the cult of the Mother Goddess did not dominate the Indus religion. On the other hand, it is the male gods that loom large on the prehistoric horizon of that age. Pipal God was the supreme deity and a multitude of subordinate male deities composed of diverse animal elements ruled over the destinies of the poor mortals inhabiting the Indus region. This inference is in consonance with the generally accepted scholastic view that in the early stages of chalcolithic civilizations the gods first conceived by human mind were male and mostly in animal or composite

[1]Frankfort, H., Tell Asmar and Khafaje (1932), p. 70.

forms.[1] Their anthropomorphic form was unquestionably a later development.

The chief god of the Egyptians was Amon-Ra, the king of gods, and the lesser divinities like Osiris, Isis, Horus, Ptah, Mentu, Atmu, etc., being His emanations, represent a subsequent evolutionary stage. In Sumer, Ea, Enlil and Anu symbolizing, respectively the supreme gods of the earth, water and sky form the earliest triad known in history. Similarly, in Asia Minor the deities personifying the natural phenomena of lightning, rain, storm, etc. were exclusively male. To quote yet another example, the female participants in Cretan bull-grappling sports divested themselves of all articles of feminine dress and put on male loin-cloths before entering the sacred bull-ring. This implies that originally these games were performed by male athletes in honour of male deities.

Sir Arthur Evans found positive proof of it in a Cappadocian seal datable to circa 2400 B.C.[2] Hetshepsut and other queens of Dynastic Egypt used to wear false beards on State occasions, thus preserving the age-old tradition that as a matter of right government was a male prerogative.[3] The cumulative evidence proves beyond doubt that it was the male, and not female, element that dominated the religion of the Indus Valley in the 4th and 3rd millennia B.C.

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[1]Mackenzie, D. A., Myths of Babylonia & Assyria, pp. 124-135.
[2]Evans, Sir A, Palace of Minos at Knossos, Vol. IV, Part I, p. 23
[3]Mackenzie, D. A., Myths of Babylonia & Assyria, p. 135.

PLATE IX.

Harappa—Tower at the north-east extremity of Mound A-B



CHAPTER VII

PREHISTORIC TOWER-TEMPLES OF INDUS VALLEY[1]

The earlier excavators of Harappa and Mohenjo-daro were unaware of the fortifications that lay hidden beneath their ruins. My long association with Harappa, first as Excavation Assistant and then as Custodian, gave me a welcome opportunity to study its topography and surface indications more closely. This enabled me to notice on Mound A-B along its periphery an extra-ordinary phenomenon. Lying intermittently round its perimeter are sporadic outcrops of clayey formation mostly hidden under debris deposited there by the action of countless monsoons.

It was impossible for a casual visitor to suspect in them the presence of a fortification wall. It had escaped the observation even of the excavators whose operations extended over many years at the site. Harappa was visited by Masson and Burnes early in the 19th century and was surveyed and partly excavated by General Cunningham in the middle of the same century. Sir John Marshall, the then Director-General of Archaeology in India, inspected the site twice between the years 1926 and 1930 while work was in progress under the supervision of Mr. M. S. Vats. In 1937 Sir Leonard Woolley, an eminent Assyriologist, also paid a flying visit to the site. Till then the fortification wall was still undetected.

The Discovery. In 1936-37 I opened a trial trench along the western perimeter of Mound A-B which revealed a good length of an extremely thick mud-brick wall running parallel to the mound. It showed signs of underground connection with the mud-brick infilling already uncovered by Mr. Vats in 1930-31 in the southern slope of Mound A-B about 200 yards further down. This piece of evidence coupled with other indications aroused in me the suspicion that the so-called mud-brick infilling referred to above could be the extension of the newly-excavated massive wall. In the light of this discovery I continued my investigations more zealously and made some soundings round the perimeter from time to time. By 1943 I was fully convinced that originally Mound A-B had a fortification wall.

[1]This article was first published in the Hindustan Times, dated August 29, 1954.

In the first week of May 1944 when Dr. Wheeler paid his first visit to Harappa I took him round the site and showed each and every bit of the surface evidence I had collected during my long investigation of these mounds. For two days he examined Mound A-B in my company in the light of the data furnished by me and was fully convinced of the existence of the fortification wall. In his report Dr. Wheller observes : "It was therefore no surprise to me to find, on visiting Harappa for the first time, in 1944, that Mound A-B, scarred and riven by three or four thousand monsoons, was still ringed by towering masses of mud-bricks, the clean pale masses of which emerged intermittently in sharp contrast to the reddened heaps of debris round about them."[1] I leave it to the conscience of Dr. Wheeler to say whether the vision of the fortification wall did really break upon him so suddenly and spontaneously as alleged by him, or, whether, it was the result of the vital information I initially placed before him on his first visit to Harappa.

The Excavation. Being in possession of this information, he started excavation at Harappa in 1946 by driving trenches straightaway along the periphery of Mound A-B. As anticipated, his brief dig was amply rewarded and a formidable defensive wall was brought to light right down to its foundations. It was this discovery that subsequently furnished him the clue to make search for a similar feature round the Stupa Mound at Mohenjo-daro.

The excavations carried out by Dr. Wheeler in 1946 reveal that originally Mound A-B was engirdled by a massive fortification wall relieved at intervals by square buttresses and gateways. Flanking the northern facade of the tumulus stands at each corner a solid mud-brick tower which formerly had a thick baked brick encasing (PL. IX). A similar pair of towers also stood at the southern facade but they were destroyed by brick-hunters long before the site was declared protected under the Ancient Monuments Preservation Act of 1905.

Taking up his cue from the discovery of the fortification wall at Harappa, Dr. Wheeler inspected the Stupa Mound at Mohenjo-daro and was fully convinced of the existence of a similar feature round that mound. Subsequently in 1950, as Archaeological Adviser to the Pakistan Government, he conducted partial excavations there and brought to light a few hitherto unknown architectural features forming an integral part of the original plan. He cleared the whole of the building area near about the Great Bath and identified it as

[1] Ancient India No. 3, p. 62.

podium of a large granary (150×75 ft.) which Sir John Marshall had styled as *hammām* or hot-air bath on the hypocaust system.

Along the northern side of this podium he also uncovered a brick platform with a floored alcove. This platform is situated outside the citadel and was used for receiving imported grain and hauling it up inside the granary for storage. Immediately to the south of the granary are the remains of a 22 ft. wide grand staircase which rises from the level of the plain to the top of the citadel-terrace. Adjoining the foot of the staircase is a lustral chamber indicating the need for purificatory ablutions before stepping inside the sacred precincts of the enclosure.

Feudal Strongholds. According to Dr. Wheeler, each fortified enclave at the two sites, *viz.*, Mound A-B at Harappa and the Stupa Mound at Mohenjo-daro, was a high citadel that towered frowningly above the outlying city. From these strongholds the feudal lords ruled over their kingdom with Harappa and Mohenjo-daro as twin capitals. He further opines that the two citadels were the work of new-comers who brought with them mature Harappa culture and innovated architectural traditions founded elsewhere upon the use of mud-brick and timber[1].

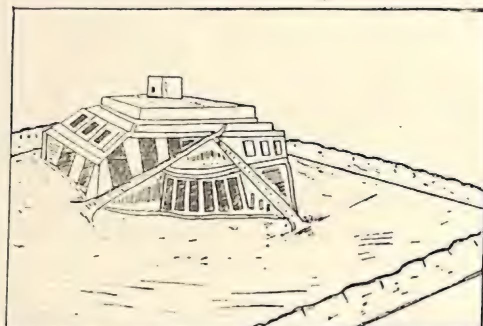
He is more explicit and emphatic in his assertion in respect of the citadel at Harappa, but regarding the one at Mohenjo-daro his statement is vague and wavering. He attributes the construction of the latter citadel to a people who emerged dominant by overthrowing the ruling dynasty. In short, whereas he holds that the whole story of the Indus Civilization at Harappa is epitomized by the four structural phases of the fortification wall, at Mohenjo-daro several cultural phases preceded the construction of the citadel. The existence of these pre-citadel cultural phases compelled him to ascribe the building of the citadel to people of a new dynasty who followed the same cultural traditions as their predecessors whom they had ousted[2].

The Main Buildings. Were the fortified enclaves at Harappa and Mohenjo-daro merely feudal strongholds or were they designed to serve some other purpose? Here is a brief description of the principal buildings situated inside the fortified enclave of the Stupa Mound at Mohenjo-daro. Crowning its summit stands a Buddhist

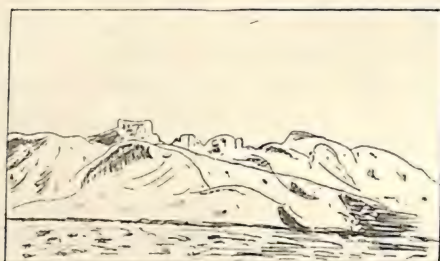
[1]Wheeler, Sir M., The Indus Civilization, (Supplementary to the Cambridge History of India), p. 93.

[2]Wheeler, Sir M., *Ibid.* p. 94

PLATE X

क  I

ZIGGURET AT UR
'उर' नगर का पीठ मन्दिर

ख  2

RUINS OF TOWER OF BABEL
बाबल के विख्यात पीठ मन्दिर के ध्वंस

ग  3

STUPA MOUND (Mohenjo-Daro)
स्तूप-टीला (मोहेंजो-दड़ो)

stupa (PL. X, 3) with its monastic adjuncts attributable to the Kushan times (2nd century A. D.). About 190 ft. to the west of this stupa is the Great Bath (39×23 ft.) which, according to Sir John, belongs to the intermediate period. To the south of the above stupa are the remains of a large pillared hall (87×85 ft.) whose roof was supported by 25 rectangular brick pillars averaging 5×3·3 ft. in thickness and of another large structure which Mackay called a "college building". Besides, there are remains of another very spacious building which the same authority has designated as "Assembly hall". Dr. Wheeler's excavation of 1950 further laid bare in this area the sub-structure of a large granary.

Sumerian Ziggurat. The structural and material evidence at hand shows that the fortified citadels at Harappa and Mohenjo-daro were more religious than secular in character. They exhibit a close resemblance to the tower-temples or Ziggurats which formed a prominent feature of almost every Sumerian city in Mesopotamia in the 3rd mill. B.C. The biggest and the most famous was the Ziggurat of Babylon which in Hebrew tradition became the Tower of Babel (PL. X, 2)[1], now entirely destroyed. The one of Ur is the best preserved at present (PL. X, 1)[2]. This Ziggurat is one solid mass of brick-work, the core being of unbaked brick and the exterior a skin of baked brick of about eight feet thickness.

Originally, it consisted of several stages, each successive stage receding back and becoming smaller in size as it rose above the other. The stages were originally coloured black, red, blue, yellow, etc., and the colours having a mystical significance stood for the various divisions of the universe, *viz.*, the dark underworld, the habitable earth, the firmament, etc. For drainage of the interior of the tower-temple the several terraces were provided with 'weeper-holes' and this prevented the mud-brick core from swelling and bursting the retaining walls.

Priest's Palace. Sumerian tower-temples were also provided with an enceinte or a surrounding rampart. While describing the Ziggurat at Ur, Sir Leonard Woolley mentions that close to the temple entrance there was a lustral chamber where the worshippers purified themselves before going farther on to holy ground. Situated within the four walls of the fortified enclave of the Sumerian Ziggurat was the palace of Patesi, the high priest, who was the temporal

[1]Hall, Dr. H. R., A Season's Work at Ur., p. 48.
[2]*Ibid.* p. 85.

PLATE XI

Harappa—Tower at north-west extremity of Mound A-B



as well as the ecclesiastical head of the State. Thus Gudea and Dungi, the most famous priests of Sumer, combined in their persons the highest authorities of the Church and the State. Besides, there were the living quarters of the entire priestly community and the temple servants, the garrison, the clerical staff, etc.

We know that in the temple of Moon God Nannar at Ur 98 women and 63 children employed in the cloth factory were part of the temple establishment. Similarly, in the temple of Bau at Lagash 21 bakers, 27 female slaves, 25 brewers, female wool-workers, spinners, weavers, smiths and other artisans formed part of the temple establishment[1]. There was also a State granary which was an integral part of a Sumerian temple. This explains why such a large area was included within the four walls of the temple.

Architectural Features. A critical examination of the architectural features of the Stupa Mound at Mohenjo-daro (PL. X, 3) goes a long way to establish its close resemblance to a Sumerian tower-temple. It is founded on a 20 ft. high solid mud-brick platform which was no doubt arranged into a number of receding stages so as to present the appearance of a terraced tower. The whole platform was originally secured by a baked brick retaining wall the sections of which are still visible on the east and the west of the mound.

As already pointed out, among the innumerable building remains excavated in this mound the most notable are the 'Great Bath', the 'Assembly Hall' and 'College Building' which fit in the temple scheme very well. The Great Bath, to judge from its dimensions, could have been used by the priests and the worshipping public alike. The Assembly Hall was intended for large religious congregations and possibly for public gatherings ; the College Building served the purpose of imparting hieratic education to the privileged inmates of the enclave, the priests.

The most convincing proof of its being primarily a religious place is furnished by the presence of a well close to the grand staircase and a lustral chamber upstairs which show beyond doubt that the people had to perform ablutions before going farther into the sacred precincts. At various other points of approach to this area Dr. Mackay found several wells and places of ablution indicating the necessity of the same purificatory rites for the entrants. Another point which

[1]Wheeler, Sir M., The Indus Civilization, Supplementary to the Cambridge History of India, p. 23.

obviously struck Dr. Wheeler also is that majority of the stone sculptures found at Mohenjo-daro came from the Stupa Mound area. Of them two represent the human-headed composite animal which is sentinel of the divine Tree of Life and the third is that of a worshipper seated in the characteristic half-kneeling pose similar to that of the votary kneeling before the Pipal God on seal No. 430 (PL. II, 1).

Harappa Temple. At Harappa the structural evidence is not so impressive. Owing to unrestricted and prolonged vandalism of the brick-robber all important buildings have vanished from Mound A-B. However, its peripheral fortification wall clearly indicates that it was the acropolis of the city which covered an area about three miles in circuit. This is the highest among the tumuli at Harappa with a uniform height of about 35 to 40 ft. above the surrounding plain, but rising rather abruptly to 60 ft. at its northern extremity. This lofty ridge at the northern extremity is partly insulated from the rest of the mound by a deep gully which probably marks the course of an ancient lane. Behind the ridge stand two mud-brick towers as culminating links in the line of the fortification wall (PL. IX).

There is enough evidence to bear out that this ridge occupies the site of a tower-temple. Like the Stupa Mound at Mohenjo-daro the excavation in the top levels of this ridge showed that in early Gupta period (4th century A. D.) the spot was occupied by a Buddhist settlement. Several large-sized brick-tiles, terra-cotta panels with human sculptures, a few cast human heads and pottery spouts—all bearing an imprint of Gupta workmanship—support the conclusion. Below this stratum Shri Daya Ram Sahni found a large number of artefacts of the Indus period, including a heap of large undulating stone rings (PL. VIII, 9), polished architectural stone pieces with tube-drill holes, two heavy socketed stone pedestals and a pile of animal bones comprising those of dog, cattle, horse, etc.[1]

Talismanic Rings. Regarding the last-mentioned find Shri Sahni suggested that they could be the remains of a big animal sacrifice. According to Sir John Marshall, the large stone rings (PL. VIII, 9), were undoubtedly cult-objects which either symbolized the Yoni or were baetylic in character having some talismanic value. The excavation carried out here by Shri Sahni in 1920-21 was only superficial in depth, but the mud-brick masses cropping at its foot on the east and south-east and also revealed in the section cut by the deep

[1]Vats, M. S., Excavations at Harappa, Vol. I, p. 142.

gully on the southern face show that the area now occupied by the ridge was founded on a platform of considerable height.

In 1853 when Sir Alexander Cunningham visited Harappa he saw still extant flights of steps on the eastern and western faces of this ridge and also the basement of a large square building[1]. These structures had totally disappeared when Mr. Sahni inspected the site in 1920. The cumulative evidence recorded above inevitably leads to the conclusion that the ridge at the northern extremity of Mound A-B at Harappa marks the site of a big sanctuary of the tower-temple type.

Need of Fortifications. Naturally the question arises if the Stupa Mound at Mohenjo-daro and Mound A-B at Harappa were the tower-temples of the Indus period where was the necessity of fortifying them ? Here I have once more to cite the Sumerian analogy. From recorded history of contemporary Sumer we know that in the 3rd mill. B. C. the country of the Twin Rivers was split up into a number of theocratic States which were constantly at war with each other. As the Church and the State were inextricably mixed up the head of the State was also the Supreme head of the Church. Each State worshipped its own gods. The war between two States was virtually a war between their gods. Thus whenever one State triumphed over its rival the victors made the gods of the vanquished captives of their own gods and carried them away to their capital. Thus almost every tower-temple in Mesopotamia had a fortification wall or enceinte re-inforced by buttresses and bastions and often protected by a moat (PL. X, 1).[2]

Apart from this, the State sanctuaries were veritable treasure-houses where wealth of the country flowed in and accumulated, and consequently they were the main targets of enemy's attacks. Hence it was the first and the foremost duty of the State to protect them against possible aggression by building a massive fortification wall. It was divided into two parts with Harappa and Mohenjo-daro as their respective capitals and ruled by two collateral rival dynasties often hostile to each other.

While describing Stupa Mound at Mohenjo-daro Dr. Wheeler significantly remarks : "The artificial mountain of the Ziggurat and the artificial mountain of the Indus citadel may be thought to reflect

[1]Cunningham, Sir A., C. S. R. Vol. V, p. 106.

[2]See Ziggurat of Ur reproduced in Dr. H. R. Hall's "A Season's Work at Ur", p. 85.

a comparable hierarchical polity"[1]. The artificial mountain of the Indus citadel has rightly aroused in him the suspicion about its similarity with the Sumerian Ziggurat.

The material evidence referred to above makes out a strong case for the probability that the two lofty mounds at Harappa and Mohenjo-daro were prehistoric tower-temples of the Indus Valley. Each of them covers an area larger than any of their kind in the land of the Twin Rivers. To judge from their extant height and the massive plinths they must have stood in their pristine condition about 200 feet high from the surrounding plain and looked like artificial mountains. By their extensiveness, strength and towering height they could easily have excelled the biggest Ziggurat of the Sumerians.

Not Sumerian Invention. If I am correct in my identification the staged tower-temple was not an invention of the Sumerians as suggested by Dr. Woolley and others but of the prehistoric people of the Indus Valley. This seems corroborated by the high antiquity of the Indus civilization which developed on its own lines without borrowing anything from outside but contributing a lot to the cultures of Mesopotamia in the 3rd mill. B. C.

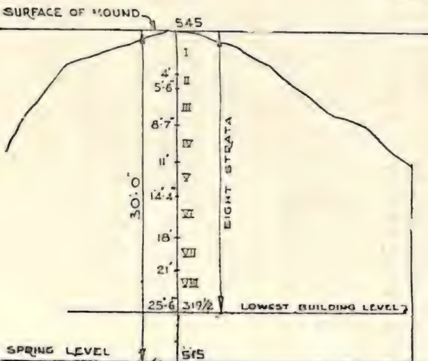
It appears that even after the final destruction of Harappa and Mohenjo-daro in the beginning of the second millennium B C. some tradition regarding the sanctity of the spot where tower-tamples had stood lingered on. May be that when in Kushan times the Buddhist stupa rose on the ruins of the Stupa Mound this tradition still survived in some form and induced the Buddhists to rear their sanctuary on this spot. The same thing might have happened in respect of the ridge on Mound A-B at Harappa where in early Gupta period a Buddhist or Brahmanical shrine existed. It is interesting to note that later on even Muslims selected the same spot to build their Idgah and the Naugaza Tomb which survive to the present day.

[1]Wheeler, Sir M., The Indus Civilization, p. 94.

PLATE. XII

SECTION: SHOWING RELATIVE STRATIGRAPHY OF MOUNDS AB & F AT HARAPPA





MOUND A B

MUD BRICK WALL
REVETMENT WALL
TOP OF RAMPART
RAMPART
TOP OF PLATFORM
PLATFORM
FOUNDATION OF PLATFORM
ALLUVIAL DEPOSIT
ALLUVIAL DEPOSIT
NATURAL SOIL
TOP OF F. WALL
TOP OF PLATFORM
VI
V
Va
IV
III b
III a
II
I
575 C.L.
558 C.L.
548 C.L.
545 C.L.
540 C.L.
527 C.L.

CHAPTER VIII

INDUS CHRONOLOGY

(Based on Stratigraphical Evidence)

The earlier excavators of the Indus sites led by Sir John Marshall were of the opinion that the Indus Civilization had a long history extending over fifteen hundred years from the beginning of the 4th to the middle of the 3rd millennium B.C. Their conclusions are based partly on the stratigraphical and partly on deductive evidence derived from foreign analogies. They also held that life at Harappa lasted a little longer than at Mohenjo-daro and that during this last phase Harappa witnessed the arrival of an alien race whose remains have been exhumed in the Cemetery H Area.

This early dating by Sir John Marshall is contested by Dr. (now Sir) Mortimer Wheeler and Prof. Stuart Piggott. They circumscribe the entire period of its life within the narrow limits of *circa* 2800-1500 B.C.[1] On the basis of his excavation round the fortification wall at Harappa in 1946, Dr. Wheeler not only ascribes a low date to the beginning of the Indus Civilization, but also comes to the conclusion that it was finally destroyed by the Aryan invaders in or about the 15th century B.C. I shall first discuss the evidence of the fortification wall and then take up other relevant points that constitute the main plank of his stand in defence of the low dating.

The fortification wall stands on a rampart of mud and debris with a core of mud-brick (PL.XII)[2]. Having a basal width of 40 ft. it is battered internally as well as externally and originally had a maximum height of about 35 ft. above the ground level. The normal height of the rampart is 10 ft. but at one place, where flood water had made a 10ft. deep erosion into the underlying alluvial deposit, it is carried ten feet deeper. Touching the top of the rampart is a bit of the baked brick revetment serving as a landmark to indicate the general ground level of the fortification wall at the time of its construction. When the defences came into being this level was obviously considered the safety point above the highest flood level. Leaning against the inner face of the fortification wall is a 33 ft. high tapering mass of mud-

[1]Ancient India No. 3, p. 82.

[2]*Ibid.* PL. XXII. opp. p. 66.

brick which Dr. Wheeler took to be a platform designed to carry the buildings inside the citadel. As I shall show below, this was not a platform but a buttress.

Dr. Wheeler says that "After a preliminary occupation of the site or its vicinity, accompanied by extensive periodical flooding, Mound A-B was heavily fortified"[1]. It means that during the short occupation of the site the new-comers found it uninhabitable due to heavy floods and as a counter-measure constructed this stupendous fortification wall. According to Dr. Wheeler the wall marks the arrival of mature Harappa culture. Under the foundations, in layer No. 26, he found sherds of a variant type of ceramic which he ascribes to some alien people who occupied the site prior to the arrival of the Harappans. He claims that his excavation in the western slope of Mound A-B (Cutting HP XXX) presents a comprehensive picture of the character of the defensive wall and covers the whole range of occupation at this mound. Nay, he holds that it represents a complete section of the Harappa Civilization.[2] In other words, the wall as revealed by his Cutting HP XXX, reflects the whole story of Harappa Civilization from beginning to end.

This claim of Dr. Wheeler, when closely examined, seems to lack support of the stratigraphical and the circumstantial evidence furnished by the past exploration. He seems to have totally ignored the results of previous excavations at this site and their intimate bearing on his own findings. The major part of pre-1946 excavations was carried out by Messrs. Daya Ram Sahni and M.S. Vats during the decade 920-21 to 1930-31. A detailed account of their operations is contained in Mr. Vats's monograph 'Excavations at Harappa.'

Most of the area excavated by Messrs. Sahni and Vats on Mound A-B lies within the contour lines 580 and 575 above the mean sea level at Karachi.[3] The eastern extremity of Dr. Wheeler's cutting HP XXX also touches the contour line 575 and corresponds in height with the top layer 1 (Ancient India No. 3, Plate XXII). It will be clear from the accompanying map (PL, XII) that the six occupation levels standing on the top of the platform lie within 16 ft. 6 in. below the highest point at the east end. According to Dr. Wheeler the platform extended all over the mound at this horizon and formed a common base for the buildings inside the citadel. This implies that the first

[1]Ancient India No. 3, p. 64.

[2]*Ibid*., p. 66.

[3]See Site Plan of Harappa (Excavations at Harappa, Vol. II, PL. I).

building level on the platform was coeval with the foundation of the wall. Now this presents a glaring discrepancy when we compare the stratigraphy of Mound A-B with that of the adjoining Mound F. In the latter mound Mr. Vats found eight occupation levels in Trench I the top of which lay within the contour lines 545 and 550. The first or the lowest occupation level in this trench was excavated at 25′ 6″ below the surface at contour line 519.5. This shows that whereas the first occupation level in Mound F stands at contour line 519.5 the same level in the adjoining Mound A-B is at contour line 558.5, involving a difference of 39 ft. between the earliest occupation levels in the two adjacent mounds.

What can be the explanation of this tremendous difference in the two earliest occupation levels if they were contemporary ? The culture represented by the two mounds is identical in every respect and the people who inhabited the two areas were also of the same ethnic strain. If the builders of the fortification wall were the first to arrive at Harappa why was it considered necessary to raise the first building level on Mound A-B 39 ft. higher while their contemporary co-settlers could live on a 39 ft. lower ground. Dr. Wheeler leaves this point unanswered. He states that the wall was founded on a rampart presumably to place it above the flood level. The 10 ft. high alluvial deposit immediately beneath the wall is clear indication that at the time it was constructed the floods were heavy and destructive. The foundation of the wall equates with contour line 540. It is difficult to assume that when annual floods were throwing up 10 ft. high alluvial deposits upto contour line 540, there could be any settlement on Mound F at contour line 519.5 at which the first building level stood. In fact there could be no life on Mound F contemporary with any stratum of Mound A-B, as the ground surface of the former is traversed by the contour line 545. Particularly the principal buildings on Mound F, *viz.*, the Great Granary, the Workmen's Quarters and the circular platforms etc., all of which lie below contour line 540, would have long perished before the foundations of the citadel were laid on Mound A-B.

The only reasonable inference to be drawn from the above enquiry is that the fortifications were constructed at a late period in the history of the Harappa Civilization. At the time of its construction there was no life on Mound F or on any of the low-lying areas situated below contour line 545. The only other tumulus that could be contemporary with it is Mound E immediately to its east, a major part of which lies within the contour lines 575 and 560.

In the light of these facts Dr. Wheeler's hypothesis that the fortification marks the arrival of mature Harappa culture and reflects the entire history of the site from beginning to end does not stand the test of critical examination. Far from representing the entire history of Harappa the Cutting HP XXX does not even reveal the whole story of occupation on Mound AB.

I have shown above that the builders of the fortification wall could not be the earliest Harappans. Harappa culture is about a millennium older than the above wall and therefore the few aberrant sherds which he picked up in layer 26 below the foundation of the wall also belonged to the same people who occupied the site before the wall came into existence. A few revealing indications of this fact were noticed by Dr. Wheeler himself in his excavation at the north-west corner of this mound. Here in his Cuttings HP XXXI and XXXV round the north-west tower he came across remains of some fragmentary buildings running at odd angles beneath its foundations[1]. These remains, composed as they are of typical Harappa bricks, are clearly assignable to an earlier period and demonstrate that the site was already occupied by the Harappans prior to the construction of the wall[2]—a fact that is also confirmed by the presence of eight building strata in Trench I on Mound F, as pointed out above. The few stray potsherds found in layer 26 are too meagre an evidence to support the view that they belonged to an alien ceramic industry. Such pale coloured thin potsherds have already been found mixed with the red Harappa pottery in previous excavations. In Mr. Vats's excavations I have examined heaps of potsherds arranged depthwise and encountered among them many abnormal sherds. Yet they all belonged to the same culture and industry.

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[1]Ancient India No. 3, p. 67, also PL. XXV B.

[2]Being unable to grasp full significance of the pre-citadel buildings, Dr. Wheeler observes :

> "The history of these defences was not a simple one. In addition to 'the village culture' found below them in the main section, at two points fragments of underlying baked brick structures were also identified. Whilst, therefore, there is no indication of any lengthy pre-citadel settlement there was certainly an appreciable antecedent phase." Wheeler—The Indus Civilization, p. 20.

May I ask, what are the eight strata of occupations in Mound F, if not sure indication of a lengthy pre-citadal phase ?

Not Platform but Buttress. Describing the Platform Dr. Wheeler observes, "Retained by the rampart and the lower part of the superimposed wall was a coeval platform of mud and mud-brick rising to a height of 33 ft. and designed to carry the internal buildings of the citadel".[1] It may be pointed out at the outset that the so-called platform is not of one build with the wall. There is a clear line of cleavage between the two structures. Nor was it originally designed, as alleged by him, to carry the internal buildings of the citadel. There was no purpose in building a 33 ft. high platform inside the citadel over an area about 400 yards long by 200 yards wide. Why was its foundation carried down to contour line 540 when it was externally protected by a massive rampart whose foundations went down some 13 ft. deeper ? Again why was its top carried upto a point corresponding with contour line 562.5, that is some 14.5 ft. higher than the highest flood level which was at contour line 548 ? Moreover, had it been a common feature of the entire mound it would certainly have appeared at this level in the Extension of Pits I and II and in the trench excavated by Mr. Vats in the southern slope of Mound A-B where excavation went deeper than the top of this platform. It would also have shown itself in the deep rain-cut ravines in the eastern slope of the mound near Naugaza Tomb. Far from being a platform it looks more like a huge buttress built up against the wall at a time when the latter began to give way under the heavy impact of the sectional masses of mud and mud-brick that compose the wall. It is difficult to say without further excavation whether it was a solitary feature or extended further along the perimeter of the wall to strengthen the weak points in the defences.

The six building levels perched on the top of the so-called platform belong to the decadent period in the history of the citadel. They came into existence when the fortifications and the buttress got buried under debris upto their top. This is borne out by their uneven foundations and by the haphazard way in which they lie huddled together one over the other with no or very little intervening debris. These flimsy building remains would have ill matched such a heavily fortified large citadel. They must have followed each other in quick succession and the aggregate period of their existence could hardly have been more than a couple of centuries or so which was too short a span for the life of this citadel mound.

The section revealed by the Cutting HP XXX does not therefore

[1]Ancient India No. 3, p. 65.

present a complete picture of the occupation levels inside the citadel. In the present condition it is difficult to say at what horizon the first occupation stood inside the fort or how many more occupation levels followed it during the lifetime of the citadel. In this respect Dr. Wheeler's excavation was defective and incomplete as it did not penetrate far beyond the fabric of the fortification wall and the buttress. Consequently, it is impossible to agree with him in the momentous conclusions he draws from it

Four Periods of Construction. Dr. Wheeler recognises four periods of construction in the life of the fortification wall : "Period I marks the time when Harappans after their first arrival at the site built the fortification wall and consolidated it by a revetment wall composed of brickbats. Period II coincided with the re-conditioning of the defensive wall, when the original revetment was rebuilt with first class bricks and considerably thickened. This phase represents the apogee of the Harappan Civilization. In Period III the north-west corner was strengthened by an additional salient and the entrances of the western gateway system were blocked".[1] Period IV is said to be represented by roughly built dwellings on the site of the western terraces which stood above a layer of debris and were associated with the intrusive ceramic of the Cemetery H. Dr. Wheeler strongly believes that the enemy that threatened the Harappans of Period III was no other than the Aryan invaders who for the first time set their foot on the Indian soil.

In the chain of arguments advanced by Dr. Wheeler there are some links that appear too weak to support his conclusions. According to him the date of first arrival of the Harappans and the construction of the fortification wall almost coincide in time. It means that the first brick industry must have been started by these first comers subsequent to their arrival here. The question arises why did they use in Period I only brickbats and not the whole bricks for the construction of the revetment which obviously formed such an important part of their defences ? Normally the brickbats come to be used only when they are readily available from the spoil of ruined buildings. The only explanation of this anomaly can be that brickbats were already available in plenty and Harappa culture was many centuries old when Harappans started the construction of the wall. The fact of the matter is that when Harappans built this wall they were not

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[1]Ancient India No. 3, p. 65.

new-comers. They had already been settled there for about a millennium or so. Presumably the calamitous floods of later times compelled them to abandon the low-lying areas in preference to the high mounds A-B and E. When they built the defences they found a lot of building material in the shape of brickbats from ruined buildings which they readily utilized for constructing the revetment.

As regards Period II, I agree with Dr. Wheeler to the extent that it marks the apogee of the Harappa Civilization. This, however, does not mean that it was the only period of prosperity in the life of this great civilization. There are unmistakable indications that this civilization had at least one more such epoch at an earlier period. This is represented by that anterior phase when public buildings like the Great Granary, the Workmen's Quarters and the circular platforms etc. pointing to a high social order and effective municipal control were reared. At this time the drainage system with its necessary adjuncts like baths, wells, sewers, etc. had attained a very high standard in the sanitation of the town. This phase is styled as 'Intermediate Period' by the earlier excavators and it was characterized by substantial buildings generally built of well-burnt whole bricks.

Harappans not on the defensive in Period III. Were the Harappans really on the defensive in Period III as asserted by Dr. Wheeler ? The evidence is too meagre and fragmentary to support this view. The strengthening of the north-western corner by an additional salient and blocking of a minor opening in the western wall of the defences are not cogent reasons to warrant the above conclusion. These minor alterations might have been dictated by the normal needs of the times. It is worth noting that the main gateway to the citadel did not exist on the western or the eastern side. It was situated in the northern facade of the citadel flanked by two mighty towers. Probably a similar gateway, now survived by mere foundations of the twin towers, also existed at the southern end of the citadel. On its eastern and western sides, too, there must have been a few minor gates for private use, and the one found by Dr. Wheeler in the western wall was obviously one of them. The width of this gateway progressively narrows down from 8 ft. to 5 ft. as it approaches the fortification wall. This five feet narrow opening in the above wall could have served no other purpose than that of an exit in time of danger. The whole structural complex outside this opening, *viz.*, the twin terraces, the curved passage, etc., looks

like a secret underground passage affording exit from the citadel in time of a grave emergency. After emerging from the citadel wall the small opening was linked on to the lane between the twin terraces which communicated with the curved passage. The terraces and the curved passage when roofed over, as originally they must have been, provided an ideal subterranean passage ultimately giving access to the 'bite' or the re-entrant from where the besieged could escape into the surrounding jungle. In these surviving structural remains we have perhaps the earliest subterranean passage (*suraṅgāmārga*) connected with a fort in India. Thus the terraces and the re-entrant did actually serve the normal needs of a citadel and it would be a far-fetched assumption to say that they served some ceremonial purpose as there is not a shred of evidence to uphold this view. The back-side of the citadel was hardly a place suitable for ceremonial processions. Moreover, if the citadel was surrounded by a moat, there would have been no space left for conducting ceremonial processions in front of the terraces. On the other hand, as a secret passage it fits admirably well in the whole defensive scheme of a citadel.

Period IV does not equate with Aryan Invasion. When Dr. Wheeler comes to Period IV in the life of the wall he treads on a very delicate ground and draws unwarranted conclusions. In the shoddy structures overlying the terraces and in the sherds of the Cemetery H found near about them he reads the signs of a mighty foreign invasion. He suggests, though first hesitantly, that this intrusive element marks the arrival of the Aryan hordes in or about the 15th century B. C. This tentative suggestion ultimately takes the shape of a considered opinion when he says that it were the Aryans who destroyed the citadels of the Indus people and carried on their onslaught on the native population and culture until they established themselves as sole masters of the *sapta-sindhu*. Finally he concludes that on the basis of the circumstantial evidence Indra, the warlord of the Aryans, stands accused, thereby making the Aryans responsible for the wholesale destruction of the Indus Civilization.

In this connection it would be relevant to review in some detail the actual chronological position of the Cemetery H and its relationship with the early Harappa culture. One extraordinary feature of the Cemetery culture is that apart from necropolitan pottery no other distinctive artefacts or structures exclusively associated with it have been found at Harappa. The few structural remains uncovered by

Mr. Vats in the Cemetery H area in connection with the burials were essentially of funeral character and not residential. Barring these fragmentary structures no other relics of the Cemetery people have come to light in the whole range of Harappa excavation. In the light of this evidence it is difficult to accept Dr. Wheeler's interpretation that the building remains standing on the terraces belonged to the Aryan invaders.[1]

In Mr. Vats's excavations it was a common experience to find Cemetery H sherds lying in association with fragmentary structures and antiques of true Harappa culture of earlier period. The overwhelming evidence gathered from the previous exploration amply proves that the Cemetery H people, after their arrival in the declining phase of the Harappa Civilization, lived with the early people for at least a couple of centuries. They got mixed up with them and adopted their culture wholesale. The only distinctive feature of their culture now traceable is the abnormal pottery. No other relics of these elusive people have come down to us to show that they had a parallel culture. There is not an iota of evidence to support that the Cemetery H pottery marks the advent of the Aryans at about 1500 B. C. If this ceramic industry belonged to the Aryans why is it not supplemented by any other material remains ? The Aryans had a distinctive culture of their own which they considered far superior to that of the people whom they had conquered. It is not understood why they allowed themselves to be completely submerged in the indigenous population whom they had subdued and what were the reasons that prevailed upon them not to impose their culture on the vanquished.

Cemetery H folk not Aryans. Since their arrival in North-West India the Aryans settled here permanently and from this spring-board they extended their sway over the Gangetic Valley and farther afield. Why should then Cemetery H ceramic be found at Harappa alone and nowhere else ? The Aryans did not drop at Harappa from air. In the long track they followed after their entry into India they must have settled at many other places and we should expect this ceramic at least at a few other sites. So far nothing of the kind has come to light anywhere though exploration has made considerable progress in that region. Again the Vedic Aryans practised cremation on a wide scale for disposal of their dead and not inhumation as evidenced in the Cemetery H.

[1]Ancient India No. 3, p. 81

Thus it cannot be proved that the Cemetery H people were Aryan invaders nor that they destroyed the Indus Civilization near about 1500 B. C. It is possible, as presumed by Sir John Marshall, that Harappa and Mohenjo-daro were already dead cities long before the Aryan advent into India. The dissolution of the Indus Empire might have taken place some time in the beginning of the second millennium B. C. as there is lot of evidence to support this assumption. This approximately fixes the lower limit of the Indus Civilization. As regards the upper limit I have shown above that Mound F at Harappa is about a thousand years older than the fortification wall round Mound A-B. According to Dr. Wheeler the construction of this wall was completed sometime in the middle of the 3rd milennlum B. C. If we add to this a thousand years more the date of the Indus Civilization is pushed back to the middle or the first half of the 4th millennium B.C. This is the conclusion to which the force of the stratigraphical and circumstantial evidence leads us. It is further supported by foreign analogies and other evidence as set forth in the following article.

PLATE XIII

HUMAN FIGURES, HAIR PINS, AND ANIMAL-HEADED RODS ETC.



क १ 1 (a)



क २ 1(b)



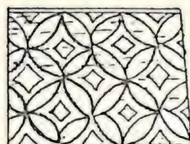
ख 2



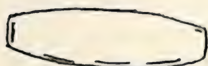
ग 3



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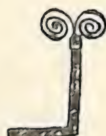


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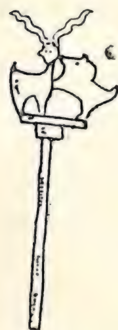
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छ 7



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CHAPTER 9

INDUS CHRONOLOGY

(Based on Material Evidence)

Besides the stratigraphical, there is quite a lot of material evidence showing that the beginnings of the Indus Civilization go back to the first half of the fourth millennium B. C. This civilization had a chequered career of some fifteen hundred years, with alternating periods of prosperity and decline, until decay and death overtook it in the beginning of the second millennium B. C. As the chalcolithic civilizations of West Asia and India are akin, it is possible to fix the dates of many cultural products of the Indus Valley with the help of their Mesopotamian analogues. The material evidence has therefore been arranged below in three categories so as to accord with the pre-Dynastic, Dynastic and the post-Dynastic periods of Mesopotamian history. The pre-Dynastic period covers some 2000 years (5000—3000 B. C.) and comprehends five successive cultures, *viz.*, the pre-Halaf, Halaf, Al'Ubaid, Uruk and Jamdet Nasr. The Dynastic period lasted for about 600 years from 3000 to 2400 B. C. and was followed by the post-Dynastic.[1]

PRE-DYNASTIC EVIDENCE

Ethnic Similarities. It is noteworthy that the facial features of the early Sumerians exhibit many similarities with the people of the Indus Valley. The long beard, shaved upper lip, and knot of hair at the back of the head were fashions alongside the shaved head and face. The sculptures found at Mohenjo-daro of the people who represented leading element among them betray the same characteristics. (PL. XIII, 1-4). Even in the Al'Ubaid period Jordon found male figurines with above features. According to Frankfort these people were Sumerians who founded their settlements first of all in southern Mesopotamia.[2] Remarking about them he says, "It is a fact of the greatest significance that the statues from Mohenjo-daro which feature the leading elements in the community, show some of the same fashions in use in India as in Mesopotamia from the Uruk

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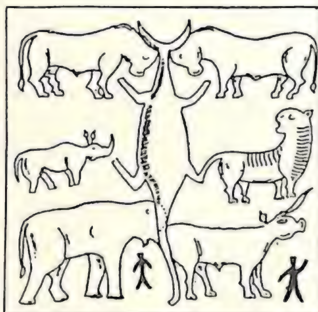
[1]Childe, V.G., New Light on the Most Ancient East (1952), p. 13.

[2]Frankfort, H., Archaeology and the Sumerian Problem, p. 48.

PLATE XIV

HUMPED BULL (NO. 1) AMD HORNED HEAD-DRESS(NO. 7) ARE FROM MESOPOTAMIA. OTHER OBJECTS ARE FROM THE INDUS VALLEY



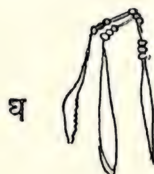


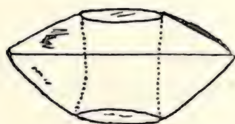
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period and even perhaps from the Ubaid period onwards. Men sometimes wore long hair in a knot on the back of the head as we know it from Eannatum stele.".[1] The Sumerian legend relates that they came from the sea (Persian Gulf) and first peopled the southern part of Mesopotamia with Eridu, the oldest Sumerian city, as their capital. The close affinity between the Indus and the Sumerian civilizations led Prof. Childe also to think on similar lines as will be apparent from the following quotation : "Were the higher elements of the Sumerian culture inspired by India ? Did the Sumerians, as a conquering minority, bring those devices to Mesopotamia ?"[2]

Epigraphical Evidence. Another reliable piece of evidence in favour of the pre-Dynastic origin of the Indus Civilization is furnished by the Indus script which maintained its pictographic character throughout its long history. The epigraphists are of opinion that this script even in its latest phase resembles the archaic linear writing of Sumer of the Jamdet Nasr period. Similarly, the Proto-Elamite and the Indus scripts have not only many common signs but even some sign-sequences (PL. XV, 1-3). This evidence shows beyond doubt that in its mature state the Indus Civilization was contemporary of Sumer and Elam at a time when cuneiform writing had not yet supplanted the archaic linear writing—a change that came about in the Early Dynastic times.

In Dr. Hunter's opinion the resemblances between the Indus and the Sumerian scripts do not become apparent till we reach the Jamdet Nasr period (3500 B. C.).[3] In this connection he further observes, "the Indus script is mainly phonetic and ideographic in origin which was many centuries before 3000 B. C. as shown by the highy conventionalized form of signs of that date The common ancestry of or mutual borrowing between the Indus, Sumerian (of Jamdet Nasr period) and the proto-Elamite scripts dates before 4000 B. C."[4]

Mesopotamian Seal with Taurelephantus. A cylindrical seal of Jamdet Nasr period is engraved with a remarkable legend depicting the Tree of Life with a group of animals round about it (PL. IV, 6). On one side of the tree is a kneeling bull nibbling at its branches

[1] Frankfort, H., Archaeology and the Sumerian Problem, p. 28.
[2] Childe, V. G., New Light on the Most Ancient East, p. 200.
[3] Hunter, G. R., Script of Hărappa and Mohenjo-daro, pp. 47-48.
[4] *Ibid.* pp. 20-21.

while on the other side stands on guard a composite animal comprising the body of a bull and the head of an elephant.[1] In front of him are three small herbivores evidently looking for a chance to have a grab at the tree. The former shows striking similarity with the composite animal of the Indus seals which is also one of the guardians of the Tree of Life of the Indus Valley (PL. I, 3). The common characteristic of the two animals is that both have elephantine features. In the Mesopotamian example the whole head is that of an elephant, but in the Indian counterpart the head is human and only a centipede hanging down the chin serves for the semblance of elephant's trunk. The elephant being foreign to Mesopotamia, the motif must have been borrowed from India where it is native and, considering the date of the cylinder seal, the borrowing naturally took place in pre-Dynastic times. Here not only the form but even the function of the two animals is identical. Other examples of Jamdet Nasr period where an elephant-like figure is suggested are represented by illustrations on PL. VI, b and PL. V, p (Frankfort, Cylinder Seals).

Mohenjo-daro Sealing. A Mohenjo-daro sealing (PL. XIV, 2)[2] shows a group of animals in which a long-snouted *gharial*, flanked by three animals on either side, stretches itself at full length in the centre. The interesting thing about this animal group is that the pincer-like open jaws of the *gharial* serve for the horns of the two bulls and its tail does duty for the trunk of the elephant and the tail of the unicorn simultaneously. Moreover, its bent forelegs can easily be mistaken for the manger usually seen lying in front of humpless bulls and other animals. This trait of the Indus glyptic is comparable to a cylinder seal engraving of the pre-Dynastic Sumer, where two horns of one antelope serve for two legs of another antelope (PL. III, 8).[3]

Theriomorphic or Composite form of gods. This is wellnigh the unanimous opinion of the scholars that the gods first conceived by human mind in the earlier stages of the chalcolithic civilizations of Western Asia were male and mostly in animal or composite form. Their anthropomorphic form was unquestionably a later development. We have seen above that the gods and the deified heroes of the Indus

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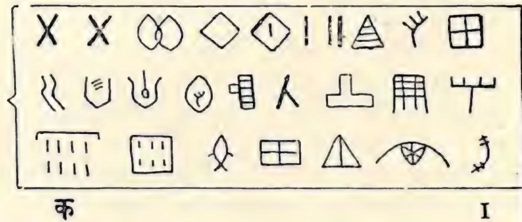
[1] Frankfort, H., Cylinder Seals, PL. VI, c.
[2] Mackay, E., Further Excavations, Vol. II PL. CIII, 16.
[3] Frankfort, Cylinder Seals PL. VII, d,

PLATE XV

COMMON SIGNS IN THE INDUS, PROTO-ELAMITE AND SUMERIAN SCRIPTS

सिन्धुलिपि

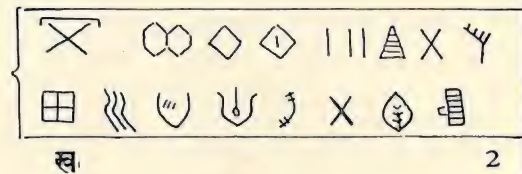
INDUS SIGNS



क I

इलम की लिपि

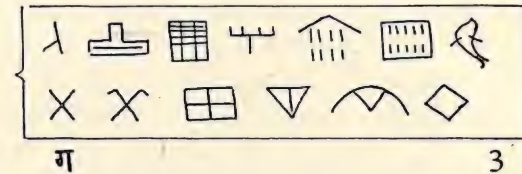
PROTO-ELAMITE SIGNS



ख 2

सुमेरियन लिपि

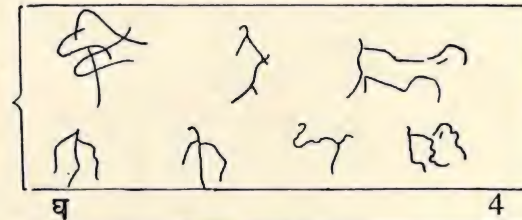
SUMERIAN SIGNS



ग 3

सुमेरियन काल की भित्तियों पर उत्कीर्ण अक्षर

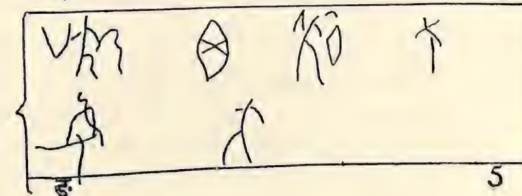
GRAFFITI ON SUMERIAN HOUSES



घ 4

हड़प्पा के कुंभखंडों पर उत्कीर्ण चित्राक्षर

SIGNS ON HARAPPA POTTERY



ङ 5

age were mostly male and of composite animal forms embodying various heterogeneous elements. This also shows that the roots of the Indus civilization extend far beyond the limits of the Early Dynastic I (*circa* 3000 B. C.).

Seats with Bull's legs. On the Indus seals a god is often seen seated in *yogic* pose on a throne having bull's legs. The Mohenjo-daro seal No. 420, however, presents a novel feature. Here the seat of the buffalo-headed god has legs in the form of crabs (PL. I, 1a). It is noteworthy that couches with clawed or hoofed feet were characteristic of early furniture in Egypt and Mesopotamia.[1]

Halaf and Harappa. Richard F. S. Starr[2] concurs with Sir John Marshall in maintaining that the state of civilization as first seen at Harappa and Mohenjo-daro must have had a long history going far beyond the earliest exposed level (Stratum VII). He says that the Harappan ware gives none of the impression of Iranian or Mesopotamian pottery. According to him, there is closer bond between Harappa and Halaf than between Harappa and any other western group. Many motifs are common in Halaf, Sialk and Harappa, but a considerable number in addition appear only at Halaf and Harappa, notably the intersecting and continuous circle pattern (PL. XIII, 5 and PL. VIII, 10). In his opinion Halaf was the culture of the origination and Sialk the stopping place in their eastward progress. This association of certain types of Harappa ware with Halaf and Sialk no doubt points to pre-Dynastic contacts between the Indus Valley and Mesopotamia.

Use of Flat Bricks. Flat bricks were used in Mesopotamia from earliest times until the close of the Jamdet Nasr period (3500 B. C.) when builders adopted the inferior plano-convex type In the Indus Valley, too, the type of the brick in use was flat which is another correspondence with the early Sumerian practice.

Roll-top Pins. Of the two roll-top pins of the type shown in figs. 7 & 8 (PL. XIII) one was found at Mohenjo-daro in a fairly deep level (18·4 ft. below datum) and the other at Chanhu-daro in the Jhukar level overlying the Harappa phase. In his article, "Notes on certain pins and a mace-head from Harappa",[3] Prof. S. Piggott

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[1]Childe, V. G., New Light on the Most Ancient East, p. 96.
[2]Starr, F. S., Indus Valley Painted Pottery, pp, 9-10.
[3]Ancient India No. 4, pp. 26-40

tries to prove that these Indus pins were exotic and came to India near about 2000 B. C. or even later. According to him, the origin of this pin is to be sought for in the Anatolean-Aegean region. He therefore concludes that the Mohenjo-daro pin found 18·4 ft. below datum could not have arrived in India before 2000 B. C. and that the Chanhu-daro find was still later as it was of the Jhukai culture.

This pin-type has also been discovered at least at two other ancient sites in Iran, *viz.*, Sialk and Hissar and at Anau in Russian Turkistan. At Sialk such pins were found in Period IV (4th millennium B. C.)[1]. The double-spiral-head motif which the pin shows on its top, also occurred on painted pottery in Sialk III and Hissar I B which are of still earlier date. Piggott admits that this type of pin originated in Iran (at Sialk IV) from where it travelled westward and appeared in the Anatolean-Aegean region in or about 2600 B. C. He further asserts that having become popular in that region in the following centuries it travelled backward to Iran and from there reached the Indus Valley by 2000 B. C. or even later. This line of argument is simply unintelligible on the very face of it. A type which originated in Iran in the 4th millennium B. C. and appeared in the Aegean region in or about 2600 B. C. could easily have migrated to the Indus Valley by the end of the 4th millennium B. C. There is no point in assuming that it first travelled westward to the Aegean region and then backward to Iran and from there to India. The date of the Indus Civilization does really go back to the beginning of the 4th millennium B. C. and it would not be unreasonable to assume that the exchange of ideas and motifs between Iran and India took place at an early date. This assumption is supported by a number of other finds showing that the two countries were indirectly in contact with each other from the middle of the 4th millennium B.C. I can also say from personal knowledge that a couple of leaden pins of this type were also unearthed at Harappa between the years 1926-27 and 1930-31. But, being in extremely decayed condition, they were not considered fit for publication. Subsequently in March, 1935, the author himself recovered in his excavation in Mound D, at Harappa,

[1]According to McCown Sialk IV=Hissar II. Piggott, however, does not agree with him in respect of this equation. Although he differs from McCown with regard to the date of Hissar and Anau pins, he accepts 4th. millennium B. C. as the date of the Sialk find.

another leaden hair-pin with double spiral head (PL. XIII, 8) at a depth of 6 ft. 9 in. below the surface[1].

The discovery of this leaden pin from a fairly deep level in Mound D which, like Mound F, is of very early date and antedates Mound A-B, clearly demonstrates that these pins, far from being exotic, were indigenous products. I think Dr. Mackay has rightly remarked that the Chanhu-daro pin, found in post-Harappa levels, was a survival of the Mohenjo-daro pin. Mr. Piggott's argument that since the contacts between mature Harappa culture and Sumer are Akkadian, the Indus Civilization cannot be earlier than the Early Dynastic period is utterly unconvincing. The stratigraphical as well as material evidence points that the Indus Civilization had contacts with Mesopotamia even in the first half of the 4th millennium B. C.

Animal-Headed Rods. Another piece of evidence adduced by Mr. Piggott in support of the late date of the Indus Civilization is said to be provided by the animal-headed pins or rods. One of them comes from Harappa (PL. XIII, 9)[2] and the other from Mohenjo-daro (PL. XIII, 10)[3]. The former was found one foot below surface in Trench III on Mound D which, like Mound F, is one of the earliest habitation sites at Harappa. This mound has yielded a large number of tiny steatite seals, some archaic terracotta animals and several primitive looking copper objects—all assignable to pre-Mohenjo-daro strata in Mound F. It is therefore clear that the pin in question could belong neither to the final nor to the post-Harappa phase of the Indus Civilization as suggested by Piggott. The Mohenjo-daro pin was found 12 ft. below datum, in Intermediate I, between the second and the third flood silt, which is also a fairly deep level and is ascribable to a very early period in the history of the site. Mr. Piggott argues that these objects have no parallels in the Harappa culture at large, but outside India their distribution is wide. It is noteworthy that the earliest examples of animal-headed rods found in Sumer go back to the dawn of the 4th millennium B.C. This type has also been found at Susa (in Uruk contexts) and the famous Dancer's Pin from Lagash is also of the same date.

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[1]Archaeological Survey of India Report for 1934-35 PL. XI, 2. The Field Register No. of this pin is 13171.

[2]Vats, M. S., Excavations at Harappa, Vol. II, PL. CXXV, 36.

[3]Mackay, E., Further Excavations, Vol. II, PL. C, 3

Here also the line of argument followed by Piggott is equally fallacious. When the type was known in Sumer in the 4th millennium B. C., it could also have been familiar in the Indus Valley at the same time or a little later. There is no point in assuming that, as suggested by Piggott, the Indian pins have been derived from Cycladian types of the Aegean region. He himself admits that, like the spiral-headed pins found at Sialk, Hissar and Anau, the earliest animal-headed pins from Sumer supplied the prototype for the Cycladian pins of 2500 B. C. If India ever borrowed this type from outside, of which there is no evidence as yet, the probability is that she borrowed it from her nearer neighbour Sumer and not from the distant Aegean region. There is no logic in pursuing the tortuous process of distribution suggested by Mr. Piggott.

Evidence of Lothal. In 1954-55 the Department of Archaeology, Government of India, tackled another protohistoric site in Saurashtra, known as Lothal, situated some thirty miles north-east of Rangpur. It appears to be the most important of all Harappan sites so far discovered in the Indian Union after partition and is better preserved than either Rangpur or Rupar. Its beginnings extend as far back as *circa* 2500 B. C. and yet it exhibits a very much decadent cultural phase which is about a millennium later than the mature Indus Civilization as witnessed at Harappa and Mohenjo-daro. Thus if the date of Lothal can be computed at 2500 B. C., as actually shown by its stratigraphy, that of the Indus Civilization automatically recedes back to the middle of the fourth millennium B. C. at the latest.

DYNASTIC EVIDENCE

The objects of Indian origin found in Mesopotamia can be assigned to two main periods : (1) those belonging to the Early Dynastic series (3000—2800 B.C.), and (2) those belonging to the Sargonid period. Under the former category come steatite vessels of the Indus origin (PL. XIV, 6) recovered from eight cities in Sumer and Elam in Early Dynastic contexts. Further evidence of Indian contacts of the same period is afforded by a bull worship scene from the Dayala region near Baghdad (PL. XIV, 1), and by at least two pre-Akkadian steatite seals containing the Indus script and animals native to India.

Bone Cylinder Seal of Susa II. Prof. Langdon is of opinion that the script of the bone cylinder seal of the Indus origin found at Susa II is closely related to archaic Sumerian as it appears in the

earliest phase known to us at Jamdet Nasr, Nippar and Kish[1]. Other objects and motifs showing an intimate relationship between the Indus Valley, early Sumer and Elam are : fragments of vases (PL, XIV, 6) found at Al'Ubaid, which are made of an Indian potstone, still used in India for vessels[2] ; the trefoil pattern on statuettes (PL. XIV. 3) which is identical with that on earliest Sumerian 'Bulls of Heavan' of early date[3] ; the toilet set comprising pincers, ear-scoop and tweezers found in a deposit of the late period at Harappa (PL. XIV, 4) and identified in pattern with one from the First Dynasty Cemetery at Ur[4]; a vase from Dayala of Early Dynastic period depicting an Indian cult scene with the bull and the manger (PL. XIV, 1)[5]; etched beads of carnelian identified in technique with certain beads from pre-Sargonic graves at Kish ; a peculiar type of jar-cover figured in PL. LXXXII, type x, specimens of which were found in Jamdet Nasr; wavy rings of shell inlay[6] ; the barrel-shaped stone weights (PL. XIII, 6)[7] ; the stone toilet boxes (PL. XIV, 6)—all of which, as Mackay says, can be matched by similar objects from Mesopotamia of the 4th and the first half of the 3rd millennium B.C. Similarly, the 'step' and the 'comb' motifs, also characteristic of Susa I pottery, reappear at Mohenjo-daro, the first in shell-inlay and the other on painted pottery (PL. XIV, 8). Both these motifs are absent in Susa II and were obviously borrowed by the Indus artists from the preceding culture.

Axes of the type 1—4[8] (M.I.C., PL. CXXXVIII—CXXXIX) are paralleled by the early examples from Susa I culture. Bronze saw with curved edge (M.I.C, PL., CXXXVII, 7) has its closest analogues

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[1]Marshall, Sir J., *Ibid.* Vol. II, p. 424

[2]Cf. Hall and Woolley, Al'Ubaid, p. 42, and V. G. Childe,The Most Ancient East, p. 200.

[3]The Mohenjo-daro statuette of bearded male is likewise draped in a shawl with trefoil decoration. This shawl also passes over the left shoulder and under the right arm.

[4]Antiquity, Vol. VIII, 1928, and V. G. Childe, The Most Ancient East, PL. XIX, and p. 180.

[5]Antiquity. Vol. XIII.

[6]Marshall, *Ibid.*, Vol. III, PL. CLVI, 4-5. also PL. CLIV, 5-7.

[7]*Ibid.*, PL. CXXXI, 36-37.

[8]It is a significant fact that though the socketed weapons like the axe, spear etc., were known to the Sumerians in the middle of the 4th mill. B.C., the Indus weapons are without sockets and represent a primitive stage in the art of metal working.

among the most primitive saws of Egypt. The Al'Ubaid people buried their dead lying on one side in earth with offerings of food, ornaments, weapons etc., legs slightly bent, hands brought up before the face holding to the lips drinking bowl—a practice also paralleled in the burials at Harappa. Loom weights or net-sinkers from Abu Sahrain and Ubaid have their analogues in Harappa, Mohenjo-daro and Chanhu-daro (PL. XIV, 5). Cones for mural decoration discovered by Loftus at Warka can be compared with thousands of similar cones from Harappa, especially with the hoard of over 600 painted cones from the trench on the southern edge of Mound A-B. The graffiti marks found on house walls at Abu Sahrain (PL. XV, 4) resemble to some extent those scratched on Harappa potterry (PL. XV, 5).

Invention of Wheel. The Sumerians invented the wheel and applied it to means of transport and pottery production. Their skill in casting metal by *cire perdue* method in the 4th millennium B.C. and the use of alloys such as bronze and electrum are well known and need no elaboration. The use of wheel both for transport and potting was known in India at an early period. The Indus craftsmen also knew the use of bronze and electrum and could cast bronze figures by *cire perdue* method at the contemporary period.

Tree Legend and Gilgamesh. The earliest documentary evidence revealed by their records shows that the Sumerians had a 'Tree of Life' which they worshipped and around which grew an elaborate legend. Their national hero (Gilgamesh) journeyed to the underworld to fetch this celestial tree so that he could bring back to life his dead friend Ea-bani or Enkidu. From numerous representations occurring on the Indus seals it is not difficult to find out that the Indus Valley people also had their Tree of Life in acacia (*śamī* ?) and also a Gilgamesh-like hero often depicted as holding two tigers by the neck and strangulating them (PL. II, 7). The correspondence is very close and at present it is difficult to say whether mutual borrowing took place between Sumer and the Indus Valley, or, whether both derived it from a common source. There is, however, little doubt that the two countries were in contact with each other in Early Dynastic times.

Statuary made in pieces. Again the sandstone statuettes found at Harappa, which were made in pieces, have their analogues in Mesopotamian statuary of the early Dynastic date. The figures of

rams found by Sir Leonard Woolley in Kings' Graves were likewise made in several pieces. This technique continued up to Sargonic times as shown by similar stone statues excavated by Frankfort at Khafaje.[1]

Vaulting-over-the-bull Sports. Another important piece of evidence pointing to the early date of the Indus Civilization is provided by the sacred sports of 'vaulting-over-the-bull' in the Indus Valley. These Indian games are about a thousand years older than their counterparts in Minoan Crete which originating in 21st cent. B. C. became popular there in the following few centuries.[2]

Gods with buffalo-horns. It is interesting to note that of the four seals excavated by Dr.E. Mackay at Mohenjo-daro on which the buffalo-headed god figures, two came from the lower and two from the upper levels. The former show that the Indus deities were represented with buffalo horns from pre-Sargonic times. In Mesopotamia gods are invariably represented with bison's horns throughout the pre-Sargonic period. It is only from the time of Sargon I (24th cent. B. C.) onward that buffalo takes the place of bison and the deities are depicted with the horns of the former animal.

Archaic Terracotta Figurines. Finally it may be pointed out that the animal-like heads and other archaic features of the terra-cotta human figures of the Indus Valley have a striking similarity with the oldest kindred specimens from Mesopotamia, Egypt and Iran.

The overwhelming evidence alluded to above conclusively proves that the Indus Civilization had contacts, whether direct or indirect, with Mesopotamia from Al'Ubaid to the end of the Dynastic times (first half of the 4th millennium B. C. to the end of the 25th century B.C.). This contact became closer during the Sargonic times and continued up to the end of the 3rd millennium B.C. The fact that the roots of the Indus Civilization go back to the first half of the 4th millennium B.C. is not only in consonance with the material evidence adduced above, but is also supported by the stratigraphical evidence revealed by the vertical diggings at the three principal Indus sites, *viz.*, Harappa, Mohenjo-daro and Chanhu-daro.

Sir John Marshall who assigned 3750 B. C. to the lowest occupational level so far revealed at Mohenjo-daro was nearer the truth than Dr. Wheeler and Prof. Piggott who have laboriously tried to

[1]Frankfort, Tell Asmar and Khafaje, p. 70

[2]See pp. 31-35 *Supra*

fix against facts the same date-limit at *circa* 2500 B. C. While tentatively ascribing 2750 B. C. to the topmost level (Stratum I) at Mohenjo-daro Sir John evidently overshot the mark. The later discoveries have proved beyond doubt that the Indus Civilization lingered on up to the beginning of the 2nd millennium B.C. as evidenced by the Indus finds from post-Sargonic contexts in Mesopotamia.

That the Indus Civilization was still alive during the post-Dynastic times (2400—2000 B. C.) is attested by a large number of finds of the Indus origin unearthed at several Mesopotamian sites such as Ur, Kish, Tell Asmar, Gawra, Susa etc. in association with Sargonic and later contexts.

Conclusions. The foregoing analysis shows beyond doubt that the Indus Civilization enjoyed a long span of life from the first half of the 4th millennium B.C. to the end of the 3rd millennium B. C. The post-Dynastic contacts between Mesopotamia and the Indus Valley represent only the latest phase of this great civilization. The stratigraphical as well as material evidence revealed by Harappa excavations clearly demonstrates that Mound F alongwith other low-lying areas is a thousand years older than the fortification wall round Mound A-B. If, as suggested by Dr. Wheeler, the date of this wall is the middle of the 3rd mill. B.C., the first settlement on Mound F would go back to about 3500 B.C. At Mohenjo-daro, owing to rise in the subsoil water level, spade could not penetrate deeper than Stratum VII. The occupational levels below this stratum are now water-logged. It is difficult to give a definite date to Stratum VII, but the discovery of a stone pyxis from Mohenjo-daro at 28.1 ft. below datum throws some revealing light about the age of the lowest occupational levels. Such pyxis have also been found at Susa, Al'Ubaid and some other Mesopotamian sites in Early Dynastic contexts and as such they provide a safe chronological landmark. Writing about the Susa find Dr. Mackay says, "the dating of lower levels at Mohenjo-daro is also brought within sight by a remarkably fortunate find : fragment of a vessel of greenish grey stone unearthed at 28.1 ft. below datam with matting pattern. This pattern was also found on a jar from Susa II.[1] The date of Susa II is variously fixed as 3000—260 , 2700, and 3000—2800 B.C. The mean of these dates is

[1]This pattern is also found on paintd potsherds from the Zhob Valley (Vide Stein, Sir A., An Archl. Tour in Waziristan, Arch : Memoir No. 37; PL. XX ; sherd No. S. J. 43 and PL. XIII, R. G. 9.)

about 2800 B.C." Now if we take 2800 B.C. as the approximate date of the pyxis found at 28.1 ft. below datam, which corresponds with Stratum VI, it would not be unreasonable to assign a date of 3000 B.C. to the earliest exposed Stratum (VII) at that site. How much more time should be allotted to the water-logged evolutionary phases that preceded Stratum VII is a matter of speculation. It is, however, patent that the phase revealed by this Stratum is already fully developed and mature. Sir John Marshall would allot a thousand years to the antecedent phases that represented the infancy and adolescent stages of the Indus Civilization. According to him the cultural development reflected in Stratum VII could not be achieved in less than a thousand years. Even at a conservative estimate if we allow six or sexen centuries for this evolutionary period the upper chronological limit of this civilization would easily extend to the first half of the 4th millennium B. C. It would therefore be safe to bracket the duration of the Indus Civilization within the dates :—the first half of the 4th millennium B.C. and the end of the 3rd millennium B.C.

PLATE XVI

1. SIMILARITIES BETWEEN INDUS AND BRAHMI WRITINGS
2. BASIC SIGNS OF INDUS SCRIPT.

ब्राह्मीलिपि

a (अ)
i (इ)
ī (ई)
ka (क)
ga (ग)
cha (च)
ja (ज)
ta (त)
tha (थ)
ba (ब)
ma (म)
ya (य)

क

1

सिन्धुलिपि

I

BASIC SIGNS

सिन्धुलिपि के मौलिक अक्षर

ख

2

CHAPTER 10

THE INDUS SCRIPT[1]

The Indus script belongs to the family of the quasi-pictographic writings which were in vogue in West Asia and the adjoining lands during chalcolithic times. It comprises over 600 letters of which about 60 are basic (PL. XVI, 2) and the rest their variants (PL. XVII, c). The latter are formed by adding various accents, inflexions or other letters to the former, producing a multiplicity of independent signs. Thus from the basic homo-sign or fish-sign a number of complicated symbols have been derived as shown in PL. XVII, c.

It is noteworthy that when we first encounter this script at Harappa and Mohenjo-daro at the earliest known levels it has already lost much of its pictographic character and become conventionalized to a large extent. Most of its signs have so thoroughly been transformed that it is extremely difficult to trace their true beginnings and to know exactly the objects they originally represented. Consequently, the initial evolutionary stages of this writing are yet shrouded in mystery.

Gradual Change. Another enigmatical trait of the script is that throughout the long history of the Indus Civilization as revealed by numerous strata at the aforesaid twin sites it does not show, unlike the Sumerian and Proto-Elamite signs, any morphological variations in the form of its characters. Like every other early system of writing it also began in a series of pictographic ideograms. From those ideograms syllabic values were gradually developed and subsequently, in some cases, even alphabetic values.

According to Barton[2], from the original pictograms the signs developed in four different ways : (1) by simplification and conventionalization of the pictographs, (2) through the formation of new signs by combining pictographs, (3) by the creation of signs through the survival of the variant forms of a single pictograph, and (4) by blending two or more originally distinct pictographs into one sign.

[1]This article was first published in the Hindustan Times, dated February 28, 1954.

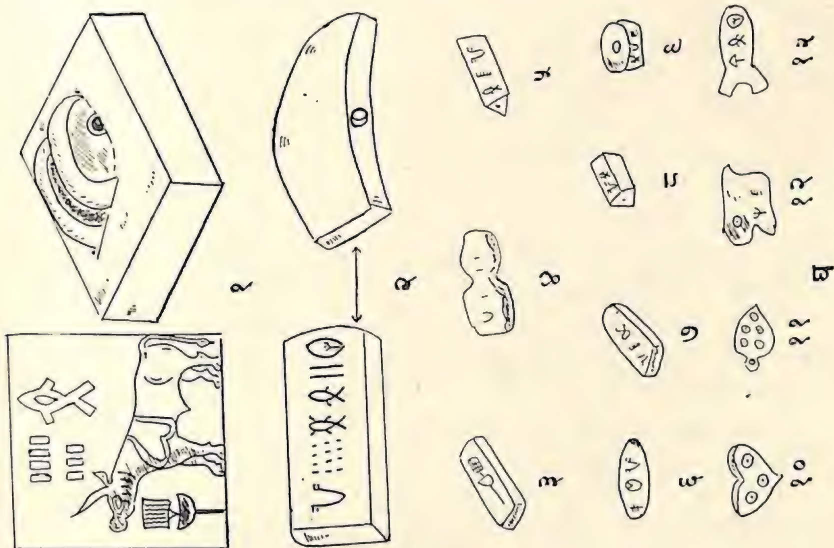
[2]Barton, Origin and Development of Babylonian Writing, p. 15.

PLATE XVII

A-B PRE-SARGONIC INDUS SEALS FOUND IN MESOPOTAMIA

C VARIANTS OF FISH AND MAN SYMBOLS

D TYPES OF INDUS SEALS



Not Alphabetic. That the Indus script was not purely alphabetic is quite obvious from the enormous number of its signs. The signs of those writings which are not purely alphabetic can be classified under three categories, *viz.*, syllables, ideograms and determinatives. The Indus script also conforms to the above classification and in this complex system all the three kinds of letters are present.

Another striking feature of the script is that in the inscriptions carved on seals many recurring signs-sequences are noticeable which show that they were either familiar expressions or names of certain individuals. Messrs. Gadd and Sidney Smith claim to have noticed in its syllabary the presence of three kinds of signs, *viz.*, the 'end, signs', the 'beginning signs' and the 'numerals'. The former two have been so named because they occur with greater frequency in the end or the beginning of the texts. The numerals are formed of different sets of horizontal or vertical strokes occurring sometimes singly but generally in groups of 2 to 12 or so.[1]

Possible Origin. However, so far as the 'beginning' and the 'end' signs are concerned I have much doubt about the soundness of their view. Their whole theory is based on the hypothesis that the Indus script, like the Egyptian and the Sumerian scripts, was written from right to left. There is substantial internal evidence to indicate that this script, like its possible derivative, the Brahmi, was presumably written from left to right.

Similarities between the Indus script and the Brahmi writing have been noticed by Prof. Langdon who is strongly of opinion that the latter was derived from the former. The same view was expressed about a century back by the pioneer Indologist, Sir Alexander Cunningham, when he remarked that "an early Indian pictographic script should be the origin of the Brahmi alphabet."[2]

Langdon's view. Langdon traces the origin of many Brahmi letters to the Indus signs with confidence and has even identified the phonetic values of certain letters tentatively (PL. XVI, 1). He thinks it highly improbable that the signs of the Indus script have reached the syllabic stage comprising a consonant and a vowel as in the Brahmi alphabet. In the opinion of both Langdon and Smith the Indus script is unconnected with either the Sumerian or the

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[1]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. II, Chap. XXII, p. 416.

[2] *Ibid.* Vol. II, Chap. XXIII, p. 426,

Proto-Elamite signs, though the former scholar holds that the Indus signs resemble Egyptian hieroglyphics far more than they do the Sumerian and the cuneiform systems.[1]

It must, however, be noted that the presence of detached accents in the Indus script is a peculiarity unknown in any other system of pictographic writing. Though the relationship between the Indus script and the Brahmi writing is yet obscure, it can safely be assumed that the latter was an indirect and distant descendant of the former.[2]

The discovery of this pictographic writing shows beyond doubt that the attempts of previous Indologists like Weber, Buhler and others to derive Brahmi alphabet from Semitic sources were utterly futile. As pointed out by Mr. Gadd, the affinity between certain Indus signs and some devices on the punch-marked coins of the 5th century B.C. can only serve at present as an indication of the transitional process by which pictographic signs of the Indus script could change into Brahmi characters.[3]

The pictographic character of the letters of the Indus script is a prominent landmark for determining the age of this writing. In this connection we have at our disposal two-fold evidence for consideration. First, the internal and, secondly, the foreign analogies offered by the contemporary pictographic scripts of the Middle East.

As regards the first, the most striking point is that the script revealed by excavations in the Indus Valley does not show any variation. The seals found in the lowest as well as the highest strata bear pictograms that are already fully developed and stereotyped and no signs of evolutionary stages are discernible in their form. This implies that throughout the lifetime of these sites a homogeneous type of culture prevailed and its authors too belonged to one and the same racial stock.

The excavations in the mounds of Harappa and Mohenjo-daro have revealed some seven or eight strata of occupation levels covering a period of about eight centuries. The seals found in the lowest stratum contain writing almost similar to the one found in the upper-most.

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[1]Marshall, Sir John, Mohenjo-daro and the Indus Valley Civilization, Vol. II, Chap. XXII p. 424.

[2]*Ibid* p. 427.

[3]*Ibid* p. 413.

Period of Evolution. The highly-developed monumental character of the writing even at the earliest known levels at Mohenjo-daro presupposes an evolutionary period which, according to Sir John Marshall, cannot be less than a thousand years at the modest reckoning.[1] This would carry the beginnings of this script well into the first half of the 4th millennium B. C., if not earlier.

Now where can its beginnings be sought for except in the native soil where the roots of the Indus Civilization, of which it was but a bye-product, lie buried deep down in the water-logged substrata of Mohenjo-daro. Obviously, the Indus script as encountered in the VIIth Stratum at Mohenjo-daro was not transplanted here from a foreign soil because no known pictographic script of contemporary period can bear a detailed comparison with it in respect of the peculiarities it possesses.

Now consider the evidence of foreign analogies. A large number of seals (about 30) bearing the Indus script or animals peculiar to India, or both, have been found in Mesopotamia and Elam in the pre-Sargonic and Sargonic contexts. One of them is a bone cylinder seal of Susa (PL. XVII, A/1). The style of the design on this seal, according to Prof. Langdon, is pre-Sargonic. It contains the 'animal file motif' which is extremely early in Sumerian and Elamite glyptic and in fact, it is among the oldest known glyptic designs. The text of the inscription on this seal consists of six pictograms which are essential component signs of the Indus syllabary. On the same seal is carved a two-horned bull, an animal unknown in Sumerian glyptic, but common enough on the Indus seals.

Telloh Relics. Another Mesopotamian seal (PL. XVII, A/2,) a circular press matrix, was found by Dr. Sazzac at Telloh (Lagash), a site that has furnished relics anterior to 3000 B. C. This seal also belongs to pre-Sargonic period. It is carved out of a soft grey greenish stone and the text on it contains five Indus pictograms as shown in Fig. 2b. Another seal of steatite of Thureāu Dangin, bears six pictographs of the Indus series (PL. XVII, A/3). This, too, is said to have come from Telloh and is pre-Sargonic in date. A similar pre-Sargonic example of the Indus type, now in the Louvre, and published by Dr. Thureau, was excavated by Dr. E. Mackay in a chamber in the temple of the war-lord Il-baba at Kish beneath the pavement of King

[1]Marshall, Sir John, *Ibid.* Vol. II, p. 424

Samsuiluna. It bears four pictographs and no animal motif (PL. XVII, A/4).

Contact with West. While discussing chronology of the Indus Civilization, Dr. (now Sir) Mortimer Wheeler and Prof. Piggott also notice the above 30 seals. In their opinion though the number is quite impressive, yet their analysis reveals that only 12 of them which are assignable to datable contexts can have any bearing on the subject. Out of these 12, only one or two have been recognized by them as pre-Sargonic and the rest as either Sargonic or post-Sargonic. Their analysis coupled with other evidence led them to believe that active contacts between India and Mesopotamia took place in Sargonic times (24th century B. C).

This conclusion of Dr. Wheeler does not appear based on sound reasoning. To say that the above lot of 12 datable seals contains only one or two pre-Sargonic seals is obviously an understatement. Prof. Langdon has recognized in them four or five such seals. Besides there is also the possibility of the presence of more pre-Sargonic examples among the remaining 18 seals of unknown context. The very presence of Indus seals of pre-Sargonic date in Mesopotamia is in itself proof positive of the fact that Indus Civilization was in contact with the West in the beginning of the 3rd millenium B. C.

Archaic Signs. The most vital evidence for determining the age of the Indus script is its archaic character. The latest researches in its composition and character have shown that so far as its anthropomorphic signs are concerned it has some resemblance to the Egyptian hieroglyphics of the early period. But in respect of other linear signs it has closer resemblance to Proto-Elamite and to a lesser degree to Sumerian. It is, however, remarkable that its resemblance to the Sumerian script does not become noticeable until we go back to the Jamdet Nasar period (cent 3500 B. C)[1].

There is no doubt that the Sumerian writing of the Jamdet Nasr period shows a higher evolutionary stage than the Indus script. In this connection Prof. Langdon remarks: "The great mass of archaic Sumerian texts already represent the signs turned to 90 degrees to the left. This was done to facilitate rapid writing from left to right whereas the original pictographs were written from right to left in perpendicular position."[2]

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[1]Hunter, G. R., The Script of Harappa and Mohenjo-daro, pp. 20-22.
[2]Marshal. Sir John, *Ibid.*, Vol. II, p. 454.

This statement clearly shows that the Indus script which retained its upright and natural position throughout was more archaic and therefore earlier than the majority of the texts of the Jamdet Nasr period. From this period onward the Sumerian writing gradually began to lose its pictographic character until towards the end of the dynastic times it was completely transformed into a cuneiform system which has no common points with the Indus script.

Similarly it is the Proto-Elamite script of almost the same date that presents the greatest similarity to the Indus script. There is a large number of signs in the two scripts which are exactly alike (PL. XV, 1—3).[1] They are still in the pictographic or semi-pictographic stage and probably many letters common to both scripts stood for similar ideas or objects. According to Prof. Langdon and Dr. Hunter, the Sumerian, Proto-Elamite and the Indus scripts which present so many affinities had a common origin in remote antiquity which cannot be less than the beginning of the 4th millenium B. C.

Evidence Ignored. Let it, however, be noted that recently Sir Mortimer Wheeler and Prof. Stuart Piggott, while fixing the duration of the Indus Civilization within the narrow limits of *circa* 2500-1500 B. C., have clean omitted the epigraphical evidence furnished by the Indus script. This evidence no doubt strikes a discordant note in their revised chronology but, being a material link in the chain, it merited serious consideration and due weightage. There is a lot of more important evidence which conflicts with their theory of low-dating of the Indus Civilization. This evidence shows that the roots of the Indus Civilization really go back to the beginning of the 4th millennium B. C., if not earlier.

Prof. Langdon, Messrs. Sidney Smith and Gadd, and Dr. Hunter are unanimously of the opinion that the Indus script was written from right to left like the Egyptian hieroglyphics and the Sumerian pictographic writing. The evidence adduced by them in support of this view is not conclusive and fully convincing. My research in the structure of this unique writing reveals that there is as much, if not more, counter-evidence available in the Indus seals which strongly indicates that it was written in the reverse order, that is, from left to right, like its possible derivative, the Brahmi writing.

Two Monograms. As a result of large-scale excavation of Harappa

[3]Hunter G. R., *Ibid.*, p. 47.

and Mohenjo-daro in the thirties of the present century at least 3,000 seals and other inscribed objects have been brought to light (PL. XVII, D). The pictographic signs inscribed on them have been properly classified and tabulated in the sign-manuals published by Sir John Marshall and Mr. M. S. Vats in their respective monograms on the two sites. They are useful guides for further research in the subject. The total number of these signs, including the basic as well as their variants, as given in the above manuals, is respectively 396 and 450. But if to them are added the later discoveries the total number of these signs comes up to about 650.

Several Indian and foreign scholars have made unsuccessful attempts to decipher this script. The latest publication, Script of Harappa and Mohenjo-daro, by Dr. Hunter is a serious attempt in this direction inasmuch as it makes a scientific approach to the subject. There are, however, certain doubtful issues on which it is difficult to agree with him in toto. One of them is the right-to-left direction of the writing and another is his unequivocal interpretation of certain pictographs.

For example, he claims to have read in the script the expressions meaning "king of land", "god", "to," "from", "son", "slave", etc., and to have guessed at several more. Let it, however, be noted that his interpretation of the above expressions is based on the hypothesis that the Indus script was written from right to left. But as this starting point appears insecure and faulty it is difficult to accept his interpretations unreservedly.

In the present state of our knowledge of the Indus script, it is extremely difficult to unravel its mysteries. In spite of the best efforts of eminent scholars, it is still a riddle and perhaps may remain so unless some lucky discovery like the Rosetta Stone comes to our aid. The Sumerian and Egyptian hieroglyphics would have remained a sealed book for long if luck had not thrown in the way of archaeologists the precious trilingual records of Bahistun and Rosetta. Unless and until we are fortunate in finding such a trilingual or bilingual document the Indus script, like the Cretan and Maya hieroglyphic writings, may remain for long a locked treasure-house.

Nevertheless, pending the time an opportunity like this comes our way, it would not be fruitless task to try to probe into the mysteries of this unknown script. For stimulating further study in this field Prof. Langdon offers a useful suggestion when he says : "Work-

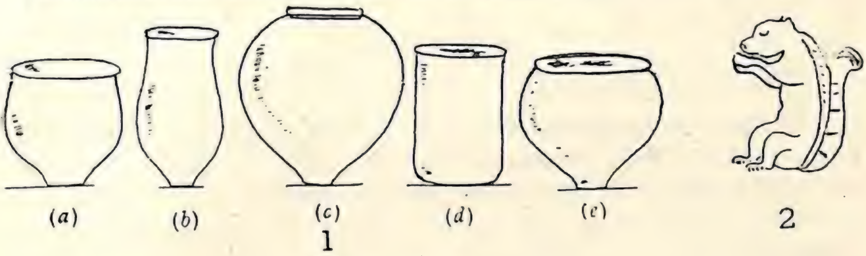
ing with the present material, I suggest to Sanskrit scholars that they choose the names of a few mythical heroes and deities, and with the few identifications here made attempt to separate the constantly recurring groups of signs and compare them with these names."[4]

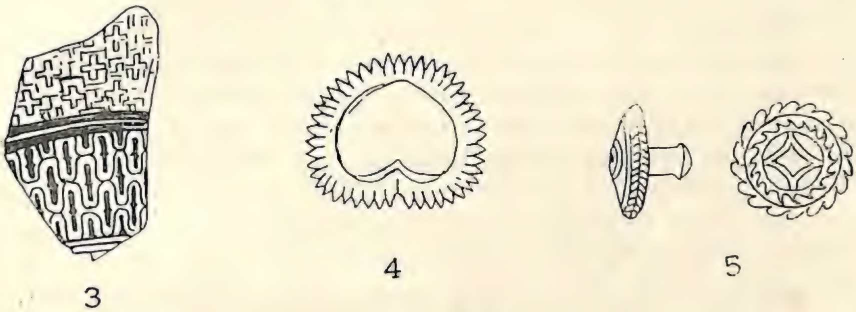
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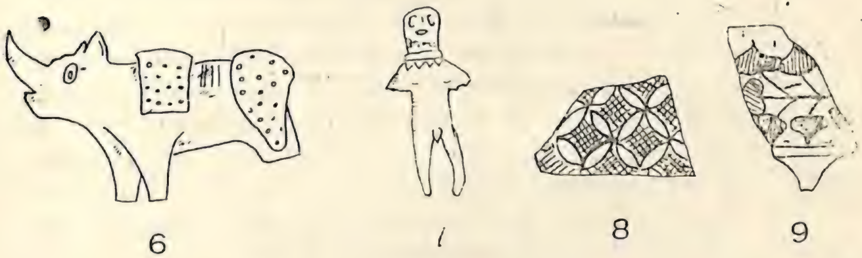
[1]Marshall, *Ibid.*, Vol. II Chaptar XXII, p. 431.

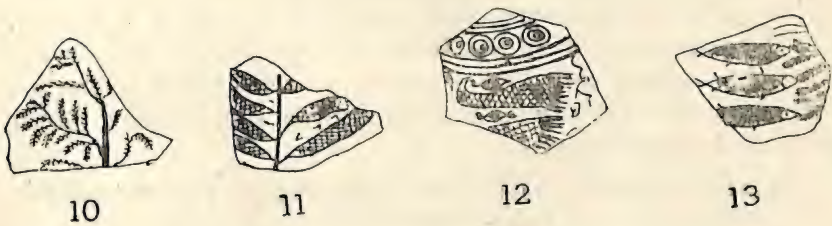
PLATE XVIII

STORAGE JALS, PAINTED SHERDS, ORNAMENTS ETS. FROM HARAPPA.









CHAPTER XI

PREHISTORIC SITES OF RANGPUR AND RUPAR[1]

The prehistoric sites of Rangpur (in Saurashtra) and Rupar (in Eastern Punjab) have recently come into the limelight. Rangpur was first excavated in 1935 by Mr. M. S. Vats who demonstrated for the first time its affinity with the Indus sites.[2] In 1947 Dr. Moreshwar G. Dikshit did some further excavations and declared it to be post-Harappan[3].

In order to ascertain its real character once for all Dr. S.R. Rao, Superintendent, Archaeological Survey of India, Western Circle, has been excavating it for the last two years and his findings confirm that Mr. Vats was right in his initial diagnosis. In the 17th session of the Indian History Congress, held at Ahmedabad in December, 1954, Dr. Rao showed with the help of lantern slides the ceramic and other objects unearthed by him from this site.

Decadent Phase. As one of the delegates to the Congress, I attended his lecture and also saw Rangpur finds exhibited in one of the halls of the university campus. Though representing a decadent phase, these finds undoubtedly preserve to some extent the art traditions which found full expression at Harappa and Mohenjo-daro in the 3rd millennium B.C. Dr. Rao delivered a similar lecture in the Anthropology and Archaeology Section of the Indian Science Congress, subsequently held at Baroda.

Notwithstanding the fact that Rangpur relics preserve to some extent the cultural elements of the Indus Civilization, there are some disputable points that need clarification. They are : (1) whether the Indus Civilization came to an abrupt end in the Indus Valley, or, as at Rangpur, it gradually languished and died a natural death ; (2) whether the date *circa* 2500—1500 B.C. assigned to this civilization is correct or not ; (3) how far do the finds from Rangpur and Rupar represent Harappa culture ?

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[1]This article was first published in the Hindustan Times, dated Feb. 6, 1955.

[2]Annual Report of the Archaeological Survey of India for 1934-35, p. 34.

[3]Indian Archaeology, 1953-54, p. 7.

No Abrupt End. I shall deal with each point in some detail. The Indus Civilization did not come to an abrubt end in the Indus Valley in or about the fifteenth century B.C., as asserted by Dr. Mortimer Wheeler after his excavation at Harappa in 1946. His assertion is based on misinterpretation of the evidence of the Cemetery H pottery which he found in the last occupational stratum overlying the fortification wall.[1] He read in it the signs of a mighty Aryan invasion which according to him, destroyed the Indus Civilization root and branch.

In coming to this momentous conclusion he seems to have totally ignored the evidence of previous discoveries made at the site by earlier excavators. One outstanding feature of Cemetery H culture was that apart from necropolitan ware no other distinctive antiquities or residential structures peculiar to it came to light in the whole range of pre-1946 excavations at Harappa. In Mr. Vats's excavations it was a common experience to find Cemetery H sherds lying in association with fragmentary structures and antiques of early Harappa culture.[2]

Internal Evidence. The overwhelming evidence gathered from previous exploration amply proves that the Cemetery H folk, after their arrival at Harappa in its decadent phase, lived with the early people for a couple of centuries. They got mixed up with them and adopted their culture wholesale. Thereafter peoples of both racial groups disappeared from the scene and the site remained deserted till it was re-occupied in the early Gupta period. There is plenty of internal evidence to bear out that Mohenjo-daro, too, was gradually abandoned by its inhabitants due to flood devastations and not violently destroyed by any large-scale hostile invasion.

The date, *circa* 2500—1500 B.C., now being assigned to the Indus Civilization, is also based on Dr. Wheeler's views as set forth in his report on Harappa excavations of 1946[3]. It is surprising that in assessing the value of the stratigraphy revealed by his cutting HP XXX he completely ignored the results of the pre-1946 excavations at the site. A reference to the enclosed map showing relative stratigraphy of the adjoining Mounds A-B and F at Harappa will indicate that whereas on Mound A-B the first building level stood at contour

[1]Ancient India No. 3, p. 74.
[2]Vats, M. S., Excavations at Harappa, Vol. I, pp. 231-233.
[3]Ancient India No. 3, p. 82.

line 558.5, the same building level in the adjoining Mound F was at contour 519.5, (PL. XII). There is a difference of about 40 ft. between the levels of the first building stratum in the two mounds, both of which are of artificial formation.

No Explanation. In other words, while the occupants of the first settlement on Mound A-B were living forty feet higher up their co-settlers on the adjoining Mound F lived on a forty feet lower ground level. If, owing to flood menace, it was considered obligatory to raise the first building level on Mound A-B to contour 558.5, how could their contemporaries live at contour 519.5 which was some 25 ft. lower than the highest flood level. Dr. Wheeler leaves this point unanswered.

The only explanation of this glaring disparity is that when fortification wall on Mound A-B was founded on a 10—20 ft. high rampart at 540 contour, Mound F was already deserted. There could be no life on this mound because all the eight building strata in it lie below contour line 545 which, as proved by Dr. Wheeler's own excavation, was the safety point above the highest flood level. Consequently, the whole Mound F is earlier than the fortification wall on Mound A-B, and 25 ft. high deposit containing eight building strata in it could not have accumulated in less than about a thousand years.

Now, as suggested by Dr. Wheeler, if *circa* 2500 B.C. be the date of the fortification wall, the first building stratum in Mound F goes back to the middle of the 4th millennium B C. Thus on the strength of the stratigraphical evidence alone the upper limit of the Indus Civilization extends to the middle of the 4th millennium B.C. This date is further corroborated by the circumstantial and other evidence deducible from Mesopotamian and Iranian analogies. It is difficult to fix the lower limit more approximately. It can reasonably be assumed that Mohanjo daro and Harappa culture in the Indus Valley probably came to an end in the beginning of the 2nd millennium B.C. This assumption finds some sup port from a number of seals of the Indus origin discovered in the post-Sargonic levels in Mesopotamia. Thus the logic of archaeological evidence leads to the conclusion that an approximate date of the Indus Civilization should be *circa* 3500-2000 B.C. and not 2500—1500 B.C.

The New Finds. The collections of Harappan finds from Rangpur and Rupar are of poor quality, unrepresentative and lack many

essential and typical Harappan elements. The potteries excavated at these sites lack specimens of best workmanship, *viz.*, the beautifully shaped round napiform jars (PL. XVIII, 1/c) big storage jars of crateriform 1 b,e.), cylindrical (PL. XVIII, 1/d) and oval types, tapering troughs (PL. XVIII, 1/*a*), broad basins, large elliptical vases, the pointed goblets with grooved shoulders, etc. Terra-cotta human and animal figurines (PL. XVIII, 6, 7) which came out in countless numbers at Harappa and Mohenjo-daro are conspicuously absent both at Rangpur and Rupar. None of the innumerable utilitarian and decorative objects of stone, faience (PL. XVIII, 4, 5), ivory, shell, etc , found in the Indus sites is represented here. The cone-shaped and annular objects (PL. VIII, 7—9) supposed to be *lingams* and *yonis* are also lacking here.

The inscribed seals and sealings which turned up in thousands at the parent sites are completely missing at Rangpur and so far only one seal has been recovered from Rupar. Personal ornaments of gold, silver, stone, faience, ivory, shell, etc. are also not to be met with in the collections. At Harappa and Mohenjo-daro hoards of copper or bronze weapons, implements and utensils were recovered, but Rangpur and Rupar have yielded only a few specimens of celts of poor quality. Among the few painted motifs on pottery from the two sites under review the typically Harappan motifs, whether geometric or naturalistic (PL. XVIII, 3, 8—13), are totally non-existent. The missing geometric designs comprise the basket design, the T-shaped design, fish-scale, intersecting circles, chequer, net, double axe, comb etc. Similarly, the missing naturalistic motifs include the *pipal* plant and leaf designs, acacia, banana, palm-leaf, fish, peacock, goat, etc.

Claim not Justified. This analysis does not justify the claim that the people of Rangpur and Rupar possessed all essential equipment of the Indus Civilization. The long list of missing Harappan elements is significant enough. The archaeological evidence yielded by these two outlying sites clearly points that the bearers of Harappa culture who settled here had for generations lost contact with the parent sites and forgotten the best art traditions and techniques of the Indus Civilization. By the time they reached these places they had lost most of the Indus associations. They had lost their religion and script. The Indus people held *pipal* and acacia sacred and worshipped many gods. There is not an iota of evidence either from Rangpur or Rupar to show that they still followed the same religion.

They were mostly illiterate and un-skilled workmen. The one seal found at Rupar is an exception and does not prove that the bulk of the population were either literate or businessmen.

The picture presented by the Harappan settlements of Rangpur and Rupar is one of slow decay and death of the mighty civilization that dominated the Indus Valley for about fifteen hundred years. Following disruption of the Indus Empire in or about *circa* 2000 B.C. the remnants of its population scattered in different directions in search of new homes. First they appear to have settled on the border-lands and then as time rolled on they moved to the adjoining regions. The more these wandering groups drifted away from their homeland the more they lost contact with its cultural currents.

The relics of Rangpur and Rupar look like the feeble trickle of a dying culture-stream whose feeder springs had dried up long ago. They are the flicker of a noble flame that had ceased to get fuel supply from its parent stock. After extermination of the Harappa culture in its native land a few centuries must have elapsed before it could deteriorate to the extent as evident at Rangpur and Rupar. Normally, to forget all that is best in a culture requires as much time as to acquire it. The date ascribed by the excavators to the Harappan strata at these sites, *viz.*, 2000-1500 B. C., tallies well with the discoveries made in the Indus Valley and elsewhere in the borderland.

Nevertheless, these prehistoric sites have a unique importance. The discoveries made there fill a void and throw new light, though dim, on the dark period of Indian history. We now know that during the interval between the final extinction of the last vestiges of the Indus Civilization (1500 B. C.) and the dawn of the historical period (6th century B. C.) certain people of an unknown racial stock inhabited the upper Gangetic basin and the adjacent regions for about four hundred years, that is from 1000 B. C. to 600 B. C.[1]

Painted Grey Ware. At Rupar the long hiatus of about five hundred years between the final disappearance of Harappa culture and the coming into life of the Painted Grey Ware culture is no doubt a puzzle. If the authors of the latter culture were Aryans,

[1]Indian Archaeology, 1954-55, pp. 9-13.

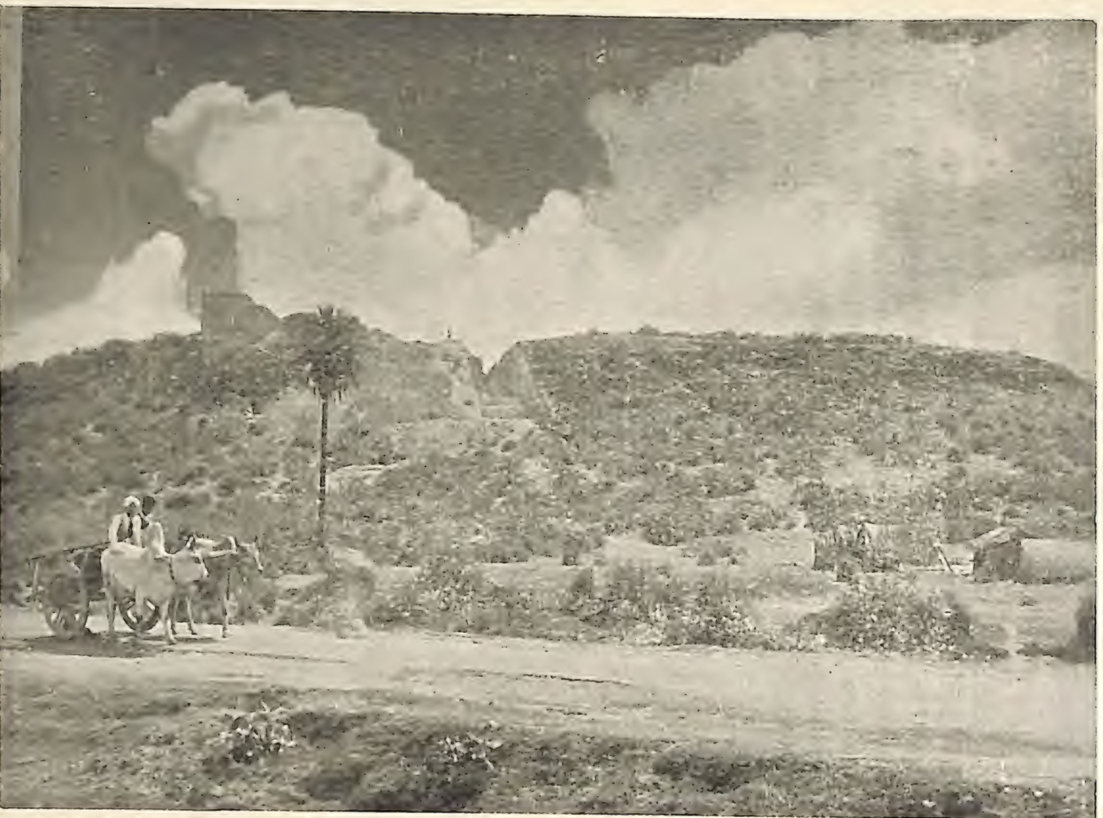
[2]*Ibid*, p.).

here, at the very gateway to the Gangetic Valley, we should have found evidence of their contact with the Harappans, supposed to be one of the indigenous races of India.

Literary evidence shows that Aryans had to struggle long before they could oust and subdue the aboriginal races in this land. At least the discoveries made at Rupar do not support this evidence and the archaeologist has to look for another site where contact between the two people can be firmly established. Till then it would be premature to say whether the Painted Grey Ware people were Aryans or not.

PLATE XIX

HASTINAPUR—GENERAL VIEW OF ONE OF THE MOUNDS, AFTER EXCAVATION. FROM EAST.



CHAPTER XII

HASTINAPUR EXCAVATION

And The Mahabharata Age[1]

The ancient ruins of Hastinapur are situated in the Mawana Tehsil of Meerut district in the United Provinces (PL. XIX). Lying on the high banks of the old bed of the river Ganga (Burganga) they are believed to mark the site of Hastinapur of the Mahabharata fame. At present the river flows some five miles away eastward and a picturesque view of its meandering course can be had from the summit of the mounds. The site was recently excavated by the Department of Archaeology, Government of India, under the supervision of Mr. B B. Lal, Superintendent Excavation Branch. A brief account of this excavation has already appeared in the *Illustrated London News*, dated October 2, 1952, and also in the *Hindustan Times* dated February 27, 1955.[2]

Five Periods of Occupation. The excavation has revealed five periods of occupation (I—V) alternated by four periods of desertion (PL. XX). The chronology of Periods III—V is confirmed by the numismatic material recovered from the dig and consequently there cannot be any doubt about its correctness. Period III begins with the dawn of the 6th century B. C. in which Gautama Buddha and Udayana, king of Kauśāmbī, lived as contemporaries. Below this horizon, however, stretches the dark period of Indian history and while dealing with this phase the archaeologist should be cautious enough not to make conjectures wide of the mark.

Importance of Period II. Of the five periods covering the life of the site Period II is the most important (PL. XX), as it bridges the gulf between the historic and the prehistoric phases of Indian history. Its 7-ft. thick occupational deposit is separated from Period I by a 1 ft. thick sterile layer of debris. In this deposit the excavator encountered vessels of Painted Grey Ware (PL. XXI, 1-5);

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[1]This article was first published in the Hindustan Standard dated August 28, 1955.

[2]The detailed report on Hastinapur Excavation has since appeared in Ancient India Nos. 10 and 11.

arrow-heads, nail-parers and sickles of copper ; glass bangles, terra cotta figurines, bone rods etc. The building remains comprised mud-houses with an occasional coating of mud-plaster. This period came to an end as the result of a devastating flood that destroyed a considerable portion of the town. On the basis of internal stratigraphy it has been claimed that the users of Painted Grey Ware found in Period II were Vedic Aryans who occupied the site from 1100 to 800 B. C. and (2) that the site represents Hastinapur of the Mahabharata time.[1]

The excavator ascribes a duration of 300 years (1100-800 B. C.) to Period II. According to him its first occupation by the Painted Grey Ware people began near about 1100 B. C. and ended in 800 B.C., or so, as the result of a heavy flood in the river Ganga[2]. He also assigns an equal period of three centuries to Period III, placing its beginning at about 600 B. C. and the end at 300 B. C.

A closer examination of the Section (PL. XX) shows a glaring discrepancy in the stratigraphy. The tradition says that the flood referred to above occurred in the time of Nichakshu who lived some 18 generations before king Udayana. Allowing 18 years as average regnal period per king from Udayana to Nichakshu (after Pargiter) Mr. Lal comes to the conclusion that the great flood could not have occurred later than about 800 B. C. (18 × 18 + 483—the date of Buddha's *Nirvana*).[3]

In fixing the chronological limits of Period II he observes : "With this (flood in 800 B. C.) as the upper limit for the end of Period II and with 7 ft. of regular occupational strata belonging to this period, it is for anybody to guess the probable date of its beginning. However, in the general context of the site about three centuries would seem to be fairly reasonable estimate for the accumulation of these strata. Consequently the lowest levels of Period II may be assigned to 1100 B. C. with probable margin on the earlier side."[4]

Duration of Period II. Though Period II has produced nothing datable the calculation of its duration should not be anybody's

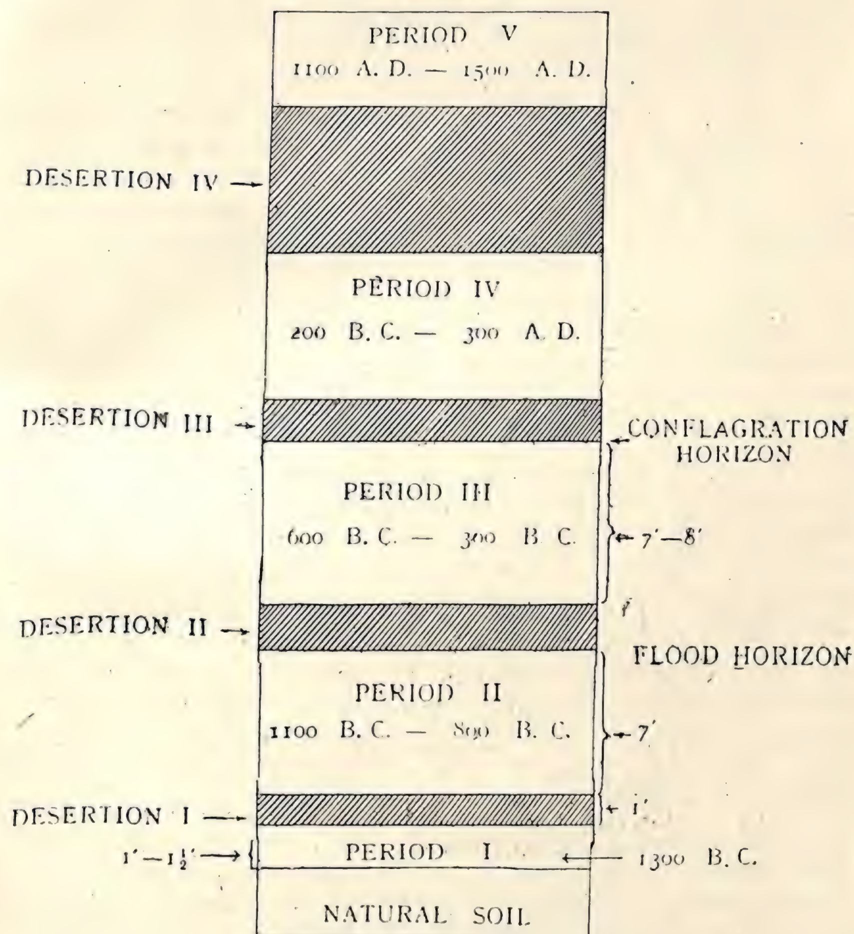
[1]Ancient India Nos. 10 and 11.

[2]*Ibid.*,pp. 23-24

[3]Vide his article "Hastinapur Excavations And The Aryan Problem" published in the Hindustan Times, dated February 27. 1955.

[4]*Ibid*,

PLATE XX


PERIOD V
1100 A. D. — 1500 A. D.
DESERTION IV
PERIOD IV
200 B. C. — 300 A. D.
DESERTION III
CONFLAGRATION HORIZON
PERIOD III
600 B. C. — 300 B. C.
7′—8′
DESERTION II
FLOOD HORIZON
PERIOD II
1100 B. C. — 800 B. C.
7′
DESERTION I
1′
1′—1½′
PERIOD I
1300 B. C.
NATURAL SOIL

guess. It seems as well-defined as any of the succeeding three periods. The Puranas and the Great Epic distinctly record that Hastinapur was founded by king Hastin who, according to Pargiter's Dynastic Lists, was 45th predecessor of Abhimanyu in the main Paurava line of the Lunar Race[1]. Nichakshu was six steps downwards from Abhimanyu This gives a total of fifty generations between Hastin and Nichakshu. The Puranas further record that Pratishthāna, the old capital of the Paurava kings at Prayāga, was abandoned and the seat of the government shifted to the site of Hastinapur in the time of Dushyanta or his son Bharata, who was the fifth predecessor of king Hastin.[2] It is therefore reasonable to assume that the site of Hastinapur was in continuous occupation for 55 generations. Now, applying the same scale of 18 years as average regnal period per ruler, the total period from Bharata to Nichakshu works out to 990 (55 × 18) or about a thousand years ; and this should logically be the duration of Period II. Assuming that this figure is correct, the rest of the stratigraphy is seriously affected. Not only it pushes back the date of Period II to 1800 B. C. and that of Period I to about 2000 B. C., but it also stands in glaring contrast with the chronology of Periods III—V, where each occupational stratum of equal thickness encompasses a period of three centuries only. This naturally raises the question whether the site excavated by the Archaeological Department is the Hastinapur of king Hastin or not. If not, we need not talk of Nichakshu and of the date of the Mahabharata war. If so, we have to account for the stratigraphical disparity noticed above.

Poor Material Equipment. In all probability it is not the Hastinapur of the Mahabharta time. One reason I have stated above. The other is the extremely poor quality of the material equipment revealed by the culture of Period II. Did the fiftyfive generations of the illustrious Paurava kings, some of whom were *Chakravartins*, live in thatched huts of mud-brick, and did they use only grey ware bowls and dishes to the exclusion of all costly materials befitting their high position. The overall picture presented by Period II is indeed dismal and implies a primitive stage hardly compatible with the Mahabharata age. Though the excavation is said to have been restricted in area, it has revealed in a nutshell the essential characteristics of the culture.

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[1]Pargiter, F. E., Ancient Indian Historical Tradition, pp. 146-149
[2]*Ibid.*, p. 273.

PLATE XXI

MOTIFS ON PAINTED GREY WARE FROM HASTINAPUR AND OTHER SITES


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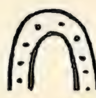

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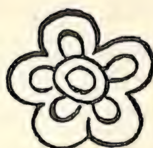

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Iron known in Mahabharata Age. Thirdly, the cultural stage represented by Period II is purely a copper age phase. It has yielded nothing of iron. In the Rigvedic age the metal used was *ayas* meaning either copper or iron, or both.[1] But in the post-Rigvedic period iron had distinctly come into use as implied by the terms *lohitāyas* (red metal) and *krishṇāyas* (black metal). It is also true that the Mahabharata War was not fought in the Rigvedic Age as the Rigveda Samhita is totally silent about this event. The first reference to Bhārata and Mahabharata is found in the Āśvalāyana Grihyasūtra. The Śānkhāyana Śrautasūtra refers to the disastrous war of the Kauravas, while in the time of Panini the heroes of Mahabharata were already deified.[2] In the Great Epic there are copious references to weapons of iron comprising arrows, maces, spears, lances, javelins, axes, tridents, swords, artificial tigerclaws (*nakhara*) etc. The terms *sarva-pāraśava, sarvāyasa, vajrāyasa, śaikyāyasa* and *āyasa* are too frequently employed as affixes to the above weapons to leave any doubt as to their being made entirely of iron or steel. Strangely enough, in Period II at Hastinapur not a single weapon of iron has been found.

Significance of Painted Grey Ware. As to the Painted Grey Ware, there is no concrete evidence to associate it with the Vedic Aryans. It is claimed that similar ware has been discovered at forty sites in the upper Ganga and Sutlej basins and at twenty others in the Ghaggar (ancient Sarasvatī) valley (PL. XXI, 6—14)[3]. In the absence of a detailed departmental report on this material it is not possible to comment on their mutual affinities or their relationship with the Hastinapur ware. The kindred ware excavated at Ahichchhatra in Stratum IX is described as plain and occurring in associotion with black polished ware.[4] There is little correspondence between the two types of Painted Grey Ware found respectively at Hastinapur and Ahichchhatra. They differ not only in technique but also in date. The former is dated 1100-800 B. C. and the latter to 'before 300 B. C.' It is possible that the Painted Grey Ware from other sites may, on closer examination, betray similar differences. Until each ceramic group has been minutely studied in all its bearings it would be premature to draw any conclusions. The typical motifs

[1]Cambridge History of India, Vol. I, p. 137.

[2]Majumdar, R. C., The Vedic Age, p. 303.

[3]Ghosh, A., The Rajasthan Desert—Its Archl. Aspect, pp. 38-42 and Ancient India Nos. 10 & 11, pp. 1-2.

[4]Ancient India No. 1, p. 40.

on this ware from Hastinapur include sigma, concentric circles, scallop etc. (PL. XXI, 1-5) which one would normally expect on cognate pottery from other sites of the same period and culture.

Foreign Analogies. The collateral evidence of Painted Grey Ware from Thessaly, Lake Urmia (Iran) and Sistan, cited by Mr. Lal, is vague. Unless we know in each case its precise context and date it is risky to rely on the testimony of such sporadic finds. Grey pottery, painted or plain, has been found at many sites in India and abroad, in connection with different periods. In each case it has to be studied and interpreted in its own context. The variant grey ware found in Thessaly, Iran and Sistan does not connect it with the ethnic movements of the Indo-Europeans. So far it is not known to have any such associations. The 'bell-beaker', the 'practice of cremation', the 'ochre-graves' and the 'horse' have by various scholars been connected with such movements, but not the Painted Grey Ware.[1] A case has yet to be made out for it. Again the Indo-Europeans made their first appearance in Greece in the 12th century B. C. and supplanted the earlier Mycaenean culture of the Minoan origin.[2] Accordingly the grey ware found in Thessaly cannot be earlier than that date and it is inconceivable that the Indo-Europeans who reached Greece in the 12th century B.C. could have arrived in the Ghaggar basin in the same century. Northern India was Aryanized much earlier than that date.

Evidence of Boghaz-keui Record. The evidence of Boghaz-keui record is equally inconclusive. It does not prove that the Mitannians, who ruled in Mesopotamia in the 14th cent. B. C., were the vanguard of the Indo-Europeans advancing from west towards India. If we accept this view we have to face many problems. Firstly, it contradicts the current theory that the Indo-Aryans had already made their entry into north-west India in the 15th century B. C. The event of the Dāśarājna Battle narrated in the Rigveda as though it was a contemporary happening lends support to this theory, and the ancient traditional history preserved in the Puranas confirms it.[3] Secondly, the Mitannians admittedly belonged to the 'śatem-speaking group' of the eastern branch of the Indo-Europeans and not to the 'centum group' of the western branch.[4] This implies that they were either a back-surge of the eastern branch of the Indo-Europeans from

[1]Childe, V.G., The Aryans, pp. 143-148, 179, 183.

[2]Majumdar, R. C., The Vedic Age, p. 208.

[3]*Ibid.*, p. 307.

[4]Childe, V. G., *Ibid.*, pp. 71-7?,

a common home north of Iran[1] (R. C. Majumdar-Vedic Age), or, an outflow of a martial race of India in the remote past (Pargiter).[2] If we take the former view the Mitannians must have branched off from the main stock before its differentiation into Indo-Iranians and Indo-Aryans. This is indicated by the Vedic deities Indra, Mitra, Varuna and Nāsatyas mentioned in the Boghaz-keui treaty where there is a fusion of the Daiva and the Asura gods. The latter view is very well advocated by Pargiter in his "Ancient Indian Historic Tradition". Ancient Indian tradition distinctly relates that there was an Aila outflow of the Druhyus through the north-west into the countries beyond where they founded many kingdoms and introduced Indian religion among those nations. It is well known that Gandhara, a Druhyu prince, gave his name to the country of Gandhara (modern Kandahar). According to Pargiter's reckoning this outflow began about 1600 B.C. and gradually spread so as to allow of the appearance of Indian gods in the Boghaz-keui treaty of the 14th cent. B. C. Whatever alternative view we may take, the Boghaz-keui evidence seems to have no bearing on the Painted Grey Ware of Hastinapur and other sites of the Ganga-Sutlej and the Ghaggar basins.

Conclusions. The foregoing analysis shows that the occupational deposits comprising Period II do not represent Hastinapur of the Mahabharata time. Consequently the question of connecting this period with Nichakshu and the Mahabharata War does not arise. The Painted Grey Ware people were an humble folk with poor material equipment who still lived in the copper age. No undue importance need be attached to the circumstance that this ware has been found at many sites connected with the Mahabharata story. Majority of the sixty sites referred to above have probably no connection with the Mahabharata story, and supposing we discover many more Painted Grey Ware sites which find no mention in the epic, the argument will lose much of its force. It is noteworthy that this ceramic is conspicuously absent in the North West Frontier Province and the adjacent tracts where Aryans first settled for long after their advent into India. Here we should have found it in equal abundance, if not more. In the absence of an antecedent history it is difficult to accept that this Painted Grey Ware was an importation from the north-west.

The erosional scar marking the end of Period II need not imply the flood of Nichakshu's time when it is not supported by any other

[1]Majumdar, R. C., *Ibid.*, p. 279.

[2]Pargiter, F. E., *Ibid.*, p. 264.

evidence. That flood was a calamity of unparalleled magnitude which wiped out the whole of Hastinapur and not only a portion of it. The discovery of equine bones from Period II is by itself no indication that the people were Aryans. At Harappa and Mohenjo-daro skeletal remains of horse were found though no Aryan association attaches to them.[1]

Referring to Harappa Culture the excavator says, "It flourished in the Indus Valley from the middle of the 3rd to the middle of the 2nd millennium B. C." This dating is evidently based on Dr. (now Sir) Mortimer Wheeler's chronology which, as I have shown above, is defective. Harappa Culture extends as far back as the first half of the 4th millennium B.C. This is corroborated not only by stratigraphical but also by the material evidence from the Indus Valley and the neighbouring countries of the Middle East.[2]

[1] Vats, M. S., Excavations at Harappa, Vol. I, p. 142.
[2] *See* pp. 66-90 *supra*.

PL. XXII

ANIMAL MOTIFS ON PAINTED POTTERIES FROM HARAPPA AND RANGPUR

RANGPUR

HARAPPA



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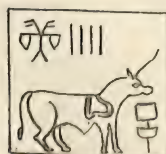
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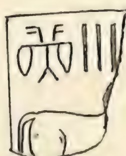
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CHAPTER XIII

PROTOHISTORIC SITE OF LOTHAL IN SAURASHTRA

(A landmark in Indus Chronology)

The discovery of the protohistoric site of Lothal in Saurashtra makes a valuable contribution to the progress of archaeology in India. Both from the brief account published in the 'Indian Archaeology (1954-55)' and from the archaeological exhibition recently held in the National Museum, New Delhi, I gather that Lothal is the most important of all Harappan sites so far discovered in the Indian Union. The two other kindred sites of importance being Rupar and Rangpur, the one in the East Punjab and the other in Saurashtra, some thirty miles south-west of Lothal.

Importance of Lothal. The importance of Lothal lies in the fact that it represents a better preserved stage of the Indus Civilization. Not only does it offer a larger variety of styles and decorated designs in pottery and personal ornaments, but it has also yielded five typical Indus seals. So far Rangpur has not produced a single seal and Rupar has only one to its credit. One of the seals discovered at Lothal contains the one-horned fabulous animal commonly called the unicorn (PL. XXII, 9). The animal has a heart-shaped covering on its back and the sacred altar under its neck exactly as found on the Indus seals. The Mohenjo-daro seal no. 387 (PL. I, 5) shows two unicorn heads clinging to the *pipal* tree as its guardians or vehicles of the deity residing the tree. The unicorn was thus associated with the Pipal God of the Indus Valley figuring so frequently on many seals from Harappa and Mohenjo-daro. This evidence indicates that the inhabitants of Lothal had preserved to some extent the dying religious traditions of the Indus Age. It is noteworthy that neither Rangpur nor Rupar has so far produced a single object of religious significance.

Personal ornaments from Lothal are represented by cogwheel-shaped nose-discs, ribbed inlay pieces, a steatite flower surviving in two petals only, and a large assemblage of beads in diverse materials. The microliths comprise a number of chert scrapers with one or two mid-ribs and the pottery shows a greater variety of shapes and sizes. The painted designs on potsherds have sets of black bands, cross-hatched semi-ovals and diamonds, wavy lines etc.

Lothal older than Rangpur or Rupar. The stratigraphical evidence shows that Lothal is much older than either Rangpur or Rupar (PL. XXIII). Here the 20 ft. thick deposit of occupational debris, comprising no less than 28 layers, has yielded Harappan and no other relics, pointing to the homogeneity of the culture throughout the period of its occupation. The archaeological report says that at Rangpur and Rupar the occupation by the Harappans began round about *circa* 2000 B. C. and ended in *circa* 1500 B. C. Thereafter Rupar was occupied by some alien people, the authors of the Painted Grey Ware, but Rangpur continued to be occupied by the descendants of the Harappans who transformed themselves into users of the 'lustrous red ware'.

Fortifications. Sometime in *circa* 2000 B. C., or thereabout, a massive fortification wall was constructed at Lothal as a defensive measure against floods or the enemy. This 'defence phase' was preceded by a 'pre-defence phase' which extended backward upto *circa* 2500 B. C. (PL. XXIII). A massive fortification wall round Mound A-B at Harappa was also uncovered by Dr. Wheeler (now Sir Mortimer) in 1946.[1] I am strongly of opinion that, like Lothal, there was a pre-defence phase of long duration in the life of the mounds at Harappa also, although Dr. Wheeler does not believe in such an antecedent phase. According to him the fortification wall marks the first arrival of mature Harappa culture and prior to it the site was occupied by a non-Harappa settlement. I still firmly hold the view, already expressed by me above, that this wall was built about a thousand years later than the earliest Harappan settlement on Mound F.[2]

Lothal a landmark in Indus Chronology. As already stated, Lothal provides an important landmark in the chronology of the Indus Civilization. A cross-section of the mound has demonstrated beyond doubt that it is half a millennium older than either Rangpur or Rupar. The date of the first Harappan settlement on this site, according to the excavator's own finding (ref. his chart showing 'sequence of cultures' displayed in the exhibition referred to above), is *circa* 2500 B.C. (PL XXIII). In the opinion of Dr. Wheeler the same is also the date of the firt appearance of mature Harappa culture

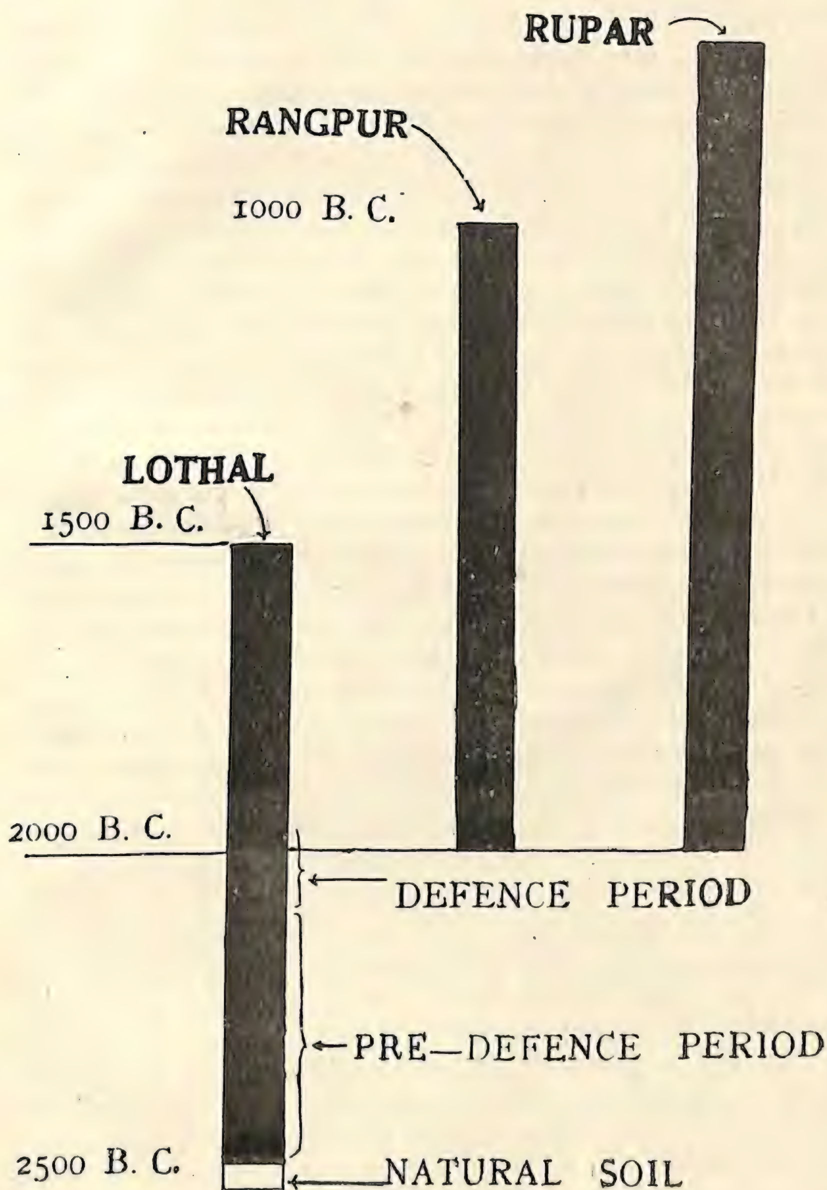
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1 *See* p. 69 *supra*.

2 The same view I have maintained in my paper 'The Revised Dating of the Indus Civilization' contributed to the Ahmadabad Session of the Indian History Congress held in the last week of December, 1954.

PL. XXIII

COLUMNS SHOWING RELATIVE AGES OF THE HARAPPAN SETTLEMENTS OF LOTHAL, RANGPUR AND RUPAR



in the Indus Valley. If we accept his dating it would mean that mature Harappa culture arrived at the three sites, *viz.*, Harappa, Mohenjo-daro and Lothal, simultaneously sometime in *circa* 2500 B.C. This is obviously an anachronism. We know that Harappa and Mohenjo-daro, the two parent-sites, were the major disseminating centres from where the Indus Civilization gradually spread over the adjoining regions. If the first Harappan settlements at the above three sites were contemporary the mound at Lothal should have revealed almost the whole of the cultural outfit of the Indus Civilization. But it has not done so. Though a better preserved site than Rangpur and Rupar, it lacks many characteristically Harappan elements. Among pottery one misses almost all superb specimens of the Indus ceramic industry, such as napiform, crateriform and carrot-shaped jars, tapering troughs (PL. XVIII, 1) etc., not to speak of the countless smaller vessels adaptable to varied domestic needs. Again not a single of the terra-cotta human figurines, including those of the so-called Mother Goddess (PL. VIII, 1, 2), has come to light at this site and even the animal figurines are but few and lack variety. Five seals and sealings found at Lothal, though bettering the previous record of a single seal from Rupar, do not make an impressive find, as none of them shows a single Harappa god or any of the sacred trees of *pipal* and acacia. These trees are also conspicuously absent on the painted pottery from Lothal. Nor do we find here a single example of the cult objects, known as *lingams* and *yonis*, which were found in hundreds in the Indus sites. Space does not permit me to elaborate the list of the missing Harappan elements, but a mere glance at the illustrative plates in the volumes on Harappa and Mohenjo-daro will convince any one of the truth of my statement. It is obviously wrong to describe the stage of Harappa culture revealed by Lothal as 'full-fledged.'

The sites of Lothal, Rangpur and Rupar are all undoubtedly Harappan in affinity. But it is also indisputable that they represent a decadent phase of this culture. Of course, between themselves they show degrees of decadence. Whereas Lothal shows a less decadent phase, Rangpur and Rupar exhibit an advanced stage of it. In view of its decadent phase Lothal can in no way be coeval with the parent sites of Harappa and Mohenjo-daro. In my previous article and the paper referred to above, I have shown that the Indus Civilization was about a millennium older than the fortification wall round Mound A-B at Harappa. The evidence of Lothal confirms my

view and contradicts Dr. Wheeler's low-dating according to which he places its beginning in *circa* 2500 B.C. and the end in *circa* 1500 B.C. I firmly believe that in the light of the additional evidence furnished by Lothal his dating, now generally being followed by the archaeologists and the historians alike, shall have to be revised.

Evidence of Rangpur. At Rangpur the spade brought to light a cultural sequence from the Harappa to the Northern Polished Black Ware period. "The Harappa culture here", says the Indian Archaeology (1954-55), "died a natural death by gradual deterioration and transformation into the subsequent culture characterized by the use of a lustrous red pottery". I have closely examined this pottery in the exhibition recently held in the National Museum, New Delhi, and I confidently feel that it differs as much from the earlier Harappa pottery at Rangpur as does the Cemetery H pottery, which is also 'lustrous red ware', from the pre-Cemetery ware at Harappa. The two 'lustrous red wares' found in the post-Harappan deposits at Harappa and Rangpur have many similarities. Not only are their shapes, colour and fabric mostly alike, but the motifs painted on the two also show stylistic affinities. For example, the antelope depicted on some Rangpur sherds (Indian Archaeology, 1954-55, PL. VII, B) finds a close parallel in the antelope painted on the Cemetery H pottery, so far as their long twisted horns, tucked-up tails and the general delineation of the physical forms are concerned (PL. XXII, 3, 4). Similarly the cattle-heads painted on Rangpur sherds, nos. 2 and 9 (Indian Archaeology, 1954-55, PL. XII, B), have ex-curving horns and sticking ears which are again closely matched by the cattle-heads on the Cemetery H ware from Harappa as shown in Figs. 5-8 and 11 (PL. XXII)[1].

'Lustrous Red Ware' People. We know it for certain that the Cemetery H folk at Harappa were of alien stock and appeared on the scene when the decadent Indus Civilization was tottering. It is therefore more logical to conclude that the authors of the 'lustrous red ware' at Rangpur, like the Cemetery H people at Harappa, belonged to an alien stock and came here at a time when Harappa culture was dying. The occurrence of the lustrous red ware at Rangpur was, as at Harappa, not due to gradual transformation of the earlier culture but to the sudden appearance of a new racial group. Perhaps it were the same Cemetery H folk who, following the exam-

[1]Vats. M. S., Excavations at Harappa, Vol. II, PL. LXIII, 10; PL. LXIV, 2, 3; PL. LXVI, 53,64 etc.

ple of the earlier migrators from Harappa, moved southward and ultimately settled at Rangpur when Harappa culture was languishing.

Another piece of evidence attesting to the lateness of the Rangpur phase of the Harappa culture is provided by the peacock motif painted on a bowl (PL. XXII, 1)[1]. It is so unlike the Harappa peacock that one doubts if it ever came from the Harappa levels. Rangpur peacock is an extremely debased form of the Harappa motif (PL. XXII, 2) and obviously belongs to a very late date. The co-occurrence of the sherds of red and buff wares in Harappa levels, both at Rangpur and Lothal, is further proof of the lateness of the Rangpur phase of the Harappa culture. At Harappa and Mohenjo-daro only red ware was characteristic of the culture. The simultaneous use of red and buff wares was no doubt a later innovation symptomatic of a long interval of time that separated the Harappa settlers in Saurashtra from their ancestors in the Indus Valley.

Evidence of Rupar. Last year's operations at Rupar were mainly confined to an extensive examination of the Cemetery of the Harappa period discovered in previous years. Though of the same type as Cemetery R 37 at Harappa, the Rupar Cemetery lacks many elements that were common enough in the former. One has only to refer to Ancient India No. 3 (figs. 13 to 23 and PLs. XLVI and XLVII) to be sure of the enormous number and variety of the funerary pottery that accompanied the burials in R 37. They include crateriform and flanged oval jars, hemispherical jar-covers, caskets with mitred lids etc., painted with motifs of religious import like peacocks, acacia, *pipal* etc. (PL. XVIII, 9, 10, 12). The above pottery types and the painted designs are entirely missing at Rupar. Nor has the Rupar Cemetery yielded a single tanged copper mirror or mother-of pearl shell which were common toilet objects buried with the dead at Harappa. In some graves at Harappa were noticed, along with human skeletons, bones of sacrificed animals and birds, a feature also lacking at Rupar.

Thus, though the cemetery at Rupar is Harappan in origin, it is not contemporary of the Cemetery R 37. It appears that its authors had lost contact with the centres of the Indus Civilization for long. Burial customs die hard and, though the mode of disposal of the dead remained the same during this long interval, the Harappans who settled at Rupar had forgotten many native traditions. Other-

[1]Indian Archaeology, 1954-55, PL. XII, A

wise it is difficult to explain the total absence of many typically Harappan elements among the burials at Rupar. In the Indian Archaeology, 1953-54, it was stated that the earlier Harappan phase at Rupar possessed almost all essential equipment of the Harappa culture. In my previous article referred to above I pointed out that the Rupar phase of Harappa culture was a late one because it lacked most of the essential equipment of this culture. I am glad to note that in the current issue of the 'Indian Archaeology (1954-55)' the department has revised its view by saying that the earlier Harappa phase at Rupar 'represents a late phase of the mature Harappa culture'. It would have been better if the term 'mature' had been dropped, because when a phase becomes late it has already left its mature stage far behind. Moreover, the expression 'late phase of the mature Harappa culture' implies that there was an immature Harappa culture with a late phase, which is misleading.

Evidence of Bara and Salaura. The Archaeological Department examined two more protohistoric sites near Rupar in 1954-55. They are Bara and Salaura situated about 300 yards apart. While at Bara the entire mound was composed of settlements of late Harappa times, at Salaura there was no sign of Harappan habitation, as the earliest occupation here started with the Painted Grey Ware[1]. This bit of excavation again shows that the Harappans and the Painted Grey Ware people never came into contact with each other at these sites, too. The same phanomenon was also observed at Rupar, Hastinapur and all other sites where the Painted Grey Ware overlay the Harappan culture. This evidence once more discountenances the hypothesis that the Painted Grey Ware people were possibly the Vedic Aryans. Had it been so, the internal evidence should have supported it. Let it be remembered that it was after prolonged and hard struggles that the Aryans were able to oust or subdue the aboriginal races of India, to one of which the Harappans are supposed to have belonged. In my recent article "Hastinapur Excavations and the Mahabharata Age", published in the *Hindustan Standard*, dated August 28, 1955, I have discussed the issue in detail and come to the conclusion that the authors of the Painted Grey Ware could not possibly be the Vedic Aryans. The stratigraphical evidence furnished by Bara and Salaura corroborates my views.

[1]Indian Archaeology, 1954-55, fig. 3

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